



Service Manual

Digital Home Cinema System

DVR 10
(DV-135)

DIGITAL HOME CINEMA SYSTEM

MODEL : DV-135

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1. Safety Precautions

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

	CAUTION RISK OF ELECTRIC SHOCKS DO NOT OPEN	
CAUTION : TO REDUCE THE RISK IF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		
	THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.	
	THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.	

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

LASER SAFETY

THIS UNIT EMPLOYS A LASER. ONLY QUALIFIED SERVICE PERSONNEL SHOULD REMOVE THE COVER OR ATTEMPT TO SERVICE THIS DEVICE DUE TO POSSIBLE EYE INJURY.

CAUTION : USE OF ANY CONTROLS, ADJUSTMENTS, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION : TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION : POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

Important Safety Instructions

- All the safety and operating instructions should be read before the appliance is operated.
 - The safety and operating instructions should be retained for future reference.
 - All warnings on the appliance and in the operating instructions should be adhered to.
 - All operating and use instructions should be followed.
1. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink,

laundry tub, in a wet basement, or near a swimming pool, and the like.

PORTABLE CART

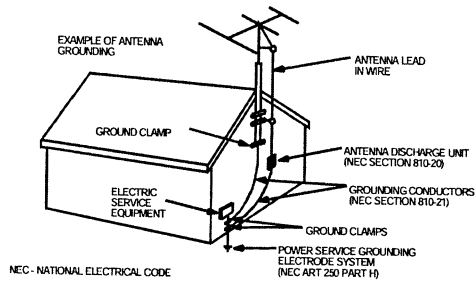


Figure 2

2. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
3. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
4. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
5. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
6. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
7. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
8. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
9. Power - Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
10. Protective Attachment Plug - If the appliance is equipped with an attachment plug having overload protection. This is a safety feature. See Instruction Manual for replacement or resetting of protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.
11. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
12. Power Lines - An outdoor antenna should be located away from power lines.

1. Safety Precautions

13. Outdoor Antenna Grounding - If an outside antenna is connected to the receiver be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode. See Figure 1.



14. Non-use Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

15. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

16. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:

- a) The power-supply cord or the plug has been damaged; or
- b) Objects have fallen, or liquid has been spilled into the appliance; or
- c) The appliance has been exposed to rain; or
- d) The appliance does not appear to operate normally or exhibits a marked change in performance; or
- e) The appliance has been dropped, or the enclosure damaged.

17. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

2. Specifications

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General Specifications

Power Supply Voltage(Optional) AC 110V or 120V or 127V or 220V or 230V or 240V(50/60Hz)	Power Consumption Operating 160Watt Dimensions(W X D X H)/Weight 430 X 380 X 97mm/9.2kg
--	---

Front Amp. Section

Power Output at 10% THD	At 1KHz 6 ohms	50W /ch
Total Harmonic Distortion	At 1KHz 1 W	0.3%
Input Sen./Impedance @ 1KHz, 47K ohms	TV , Tape/MD	200mV $\pm$ 30/47K
Output Level / Impedance @ 1KHz	Tape Rec	200mV $\pm$ 30/2.2K
Frequency Response	at 1W : TV, Tape/MD -3dB	20 ~ 50KHz
S/N Ratio IHF-A Weighted	TV , Tape/MD	90dB
Subwoofer Turnover Frequency		120Hz
Channel Separation	1KHz	45dB
Crosstalk	Tape/MD $\rightarrow$ TV	60dB
	TV $\rightarrow$ Tape/MD	60dB

Center Amp Section

Power Output at 10% THD	At 1KHz 6 ohms	50W
Total Harmonic Distortion	At 1KHz 1W	0.3%
S/N Ratio IHF-A Weighted	Rated Output	55dB
Frequency Response	Large 1W	30 ~ 20KHz
Dolby Mode	Small 1W	120 ~ 20KHz

Rear Amp Section

Power Output at 10% THD	At 1KHz 6 ohms	50W X 2
Total Harmonic Distortion	At 1KHz 1 W	1.0%
S/N Ratio Dolby	Rated Output	55dB
Frequency Response(Only Dolby)	$\pm$ 3dB 1W	120 ~ 6KHz

Video Section

Input Sen./Impedance	Composite Video(Video1, Video2)	1Vp-p/75 ohms	$\pm$ 0.5dB
Output Level / Impedance	C-Video(Video1 Rec, Monitor)	1Vp-p/75 ohms	$\pm$ 0.5dB
	S-Video(DVD Only)	Y:1Vp-p/75 ohms, negative sync.	$\pm$ 0.5dB
		C: 0.286Vp-p/75 ohms	$\pm$ 0.5dB
	Component Out(DVD Only)	Y:1Vp-p/75 ohms, negative sync.	$\pm$ 0.5dB
		Cr, Cb: 0.7Vp-p/75 ohms	$\pm$ 0.5dB
Frequency Response	5MHz ~ 6MHz	+ 0/-3dB	+ 0/-3dB
Crosstalk	@ 1MHz	45dB	40dB
S/N Ratio		45dB	40dB

FM Tuner Section FM ANT Impedance : 75 ohms

Tuning Range	USA Version	87.5 ~ 108MHz
	Multi Europe Version	87.5 ~ 108MHz
Frequency Step	USA Version	100KHz
	Multi Version	50KHz / 100KHz
	Europe Version	50KHz
Usable Sens. 75 ohms	S/N 30dB USA Version	2uV(17.2dBf)
	S/N 26dB Europe Version	3uV(20.8dBf)
S/N Ratio @ 1mV IHF-A	Mono USA Version	70dB
	Mono Europe Version	70dB
	Stereo USA Version	65dB
	Stereo Europe Version	63dB

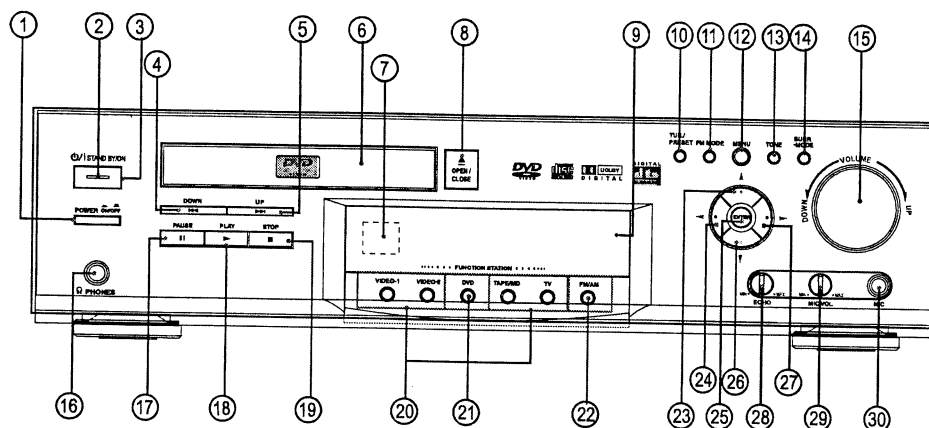
MW(AM) Tuner Section

Tuning Range	USA Version	530 ~ 1710kHz
	Europe Version	522 ~ 1620kHz
Frequency Step	USA Version	10KHz
	Multi Version	10 / 9KHz
	Europe Version	9KHz
Usable Sensitivity	1000/999KHz S/N 20dB	800uV/m
S/N Ratio	400Hz, 30%Mod, 1000KHz(10mV Input)	40dB

3. Location of Users Controls

-. Front Panel

1) DV-135



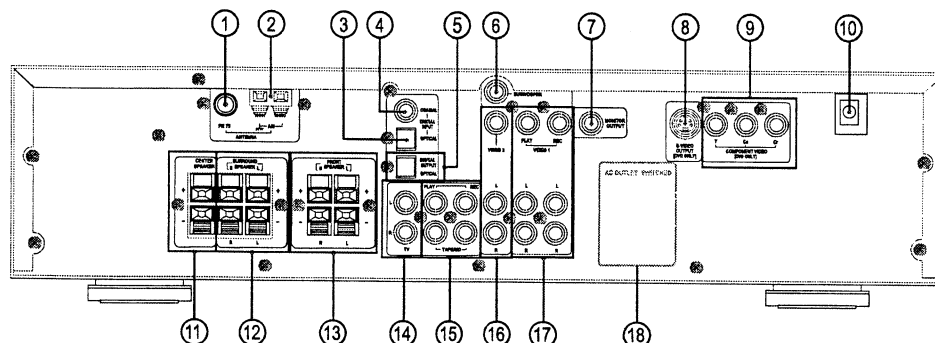
1. POWER ON/OFF switch
2. STANDBY indicator
3. STANDBY/ON button
4. SKIP/SEARCH DOWN (◀◀) button
5. SKIP/SEARCH UP (▶▶) button
6. DVD/VIDEO CD/MP3 CD/audio CD disc tray
7. Remote control sensor
8. OPEN/CLOSE (▲) button
9. Display
10. TUNE/PRESET button
11. FM MODE button
12. MENU button
13. TONE button
14. SURROUND MODE button
15. MASTER VOLUME control

16. PHONES jack
17. PAUSE (||) button
18. PLAY (▶) button
19. STOP (■) button
20. Input selector :
VIDEO 1, VIDEO 2, TAPE/MD, TV buttons
21. Input selector : DVD buttons
22. Input selector : TUNER buttons
23. MOVE UP(▲) button
24. MOVE LEFT(◀) button
25. ENTER button
26. MOVE DOWN(▼) button
27. MOVE RIGHT(▶) button
28. ECHO LEVEL control(Optional)
29. MIC VOL control(Optional)
30. MIC jack(Optional)

3. Location of Users Controls

DV-135

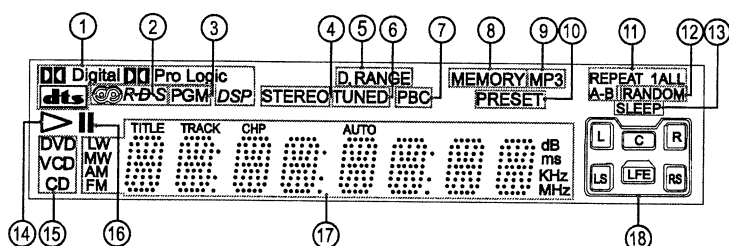
-. Rear Panel



1. FM ANTENNA connector
2. AM ANTENNA connectors
3. DIGITAL INPUT OPTICAL jack
4. DIGITAL INPUT COAXIAL jack
5. DIGITAL OUTPUT OPTICAL jack
6. PRE OUT SUBWOOFER jack
7. MONITOR OUT jack
8. S VIDEO MONITOR OUT jack
9. COMPONENT VIDEO OUTPUT Y/Cb/Cr jacks

10. Power cord
11. CENTER SPEAKER connectors
12. SURROUND SPEAKERS connectors
13. FRONT SPEAKERS connectors
14. TV IN jacks
15. TAPE/MD IN PLAY(IN)/REC(REC) jacks
16. VIDEO 2 IN jacks
17. VIDEO 1 PLAY(IN)/REC(OUT) jack
18. AC outlet(Optional)

-. Display



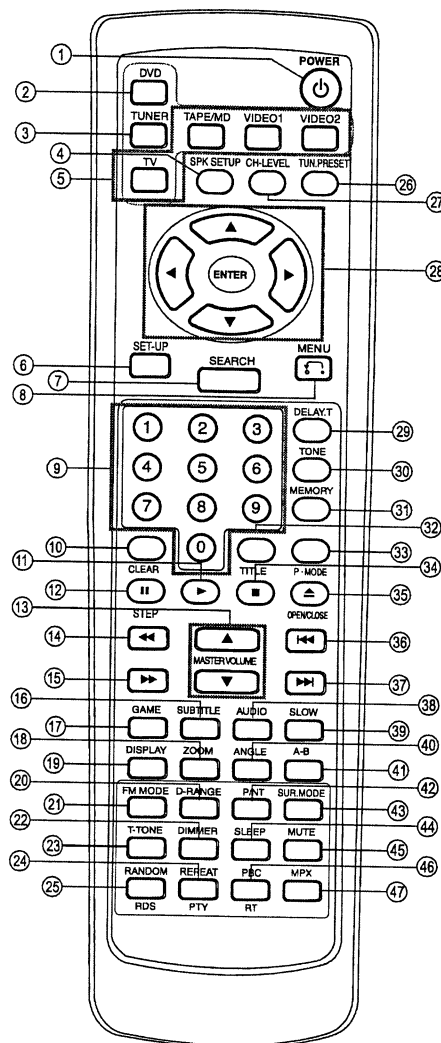
1. SURROUND MODE indicator
2. RDS indicator
3. PROGRAM indicator
4. STEREO indicator
5. DYNAMIC RANGE indicator
6. TUNED indicator
7. PBC(Playback Control) indicator
8. MEMORY indicator
9. MP3 indicator

10. PRESET indicator
11. REPEAT indicator
12. RANDOM indicator
13. SLEEP indicator
14. PLAY indicator
15. DVD/VCD/CD indicator
16. PAUSE indicator
17. MULTI FUNCTION indicator
18. SPEAKER CONFIGURATION indicator

3. Location of Users Controls

-. Remote Controller

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1. STANDBY/ON button
2. DVD FUNCTION button
3. TUNER FUNCTION button
4. SPEAKER SETUP button
5. INPUT SELECTOR: TV/TAPE/VIDEO 1 /VIDEO 2 button
6. SET UP button
7. SEARCH button
8. MENU/PBC RETURN button
9. Number buttons
10. CLEAR button
11. PLAY (▶) button
12. PAUSE (⏏) button
13. VOLUME ▲/▼ buttons
14. FAST REWIND(FR) (⏮) button
15. FAST FORWARD(FF) (⏭) button

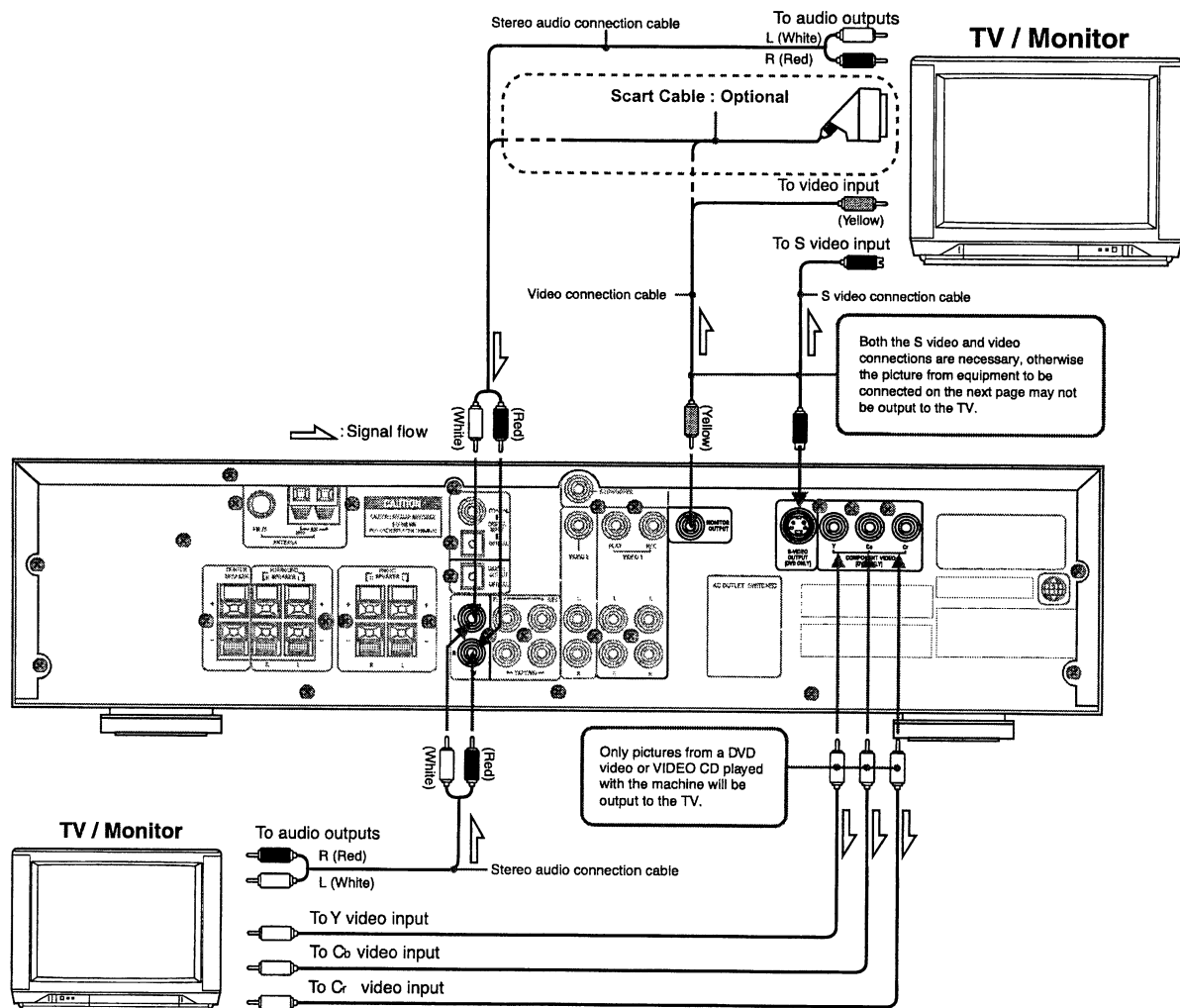
16. SUBTITLE button
17. GAME button
18. ZOOM button
19. DISPLAY button
20. D-RANGE(Dynamic Range) button
21. FM MODE button
22. DIMMER button
23. TEST TONE button
24. REPEAT/PTY button
25. RANDOM/RDS button
26. TUNER PRESET buttons
27. CH LEVEL button
28. MOVE ▲/▼/◀/▶ /ENTER buttons
29. DELAY TIME button
30. TONE button
31. MEMORY button

32. TITLE button
33. PLAY MODE button
34. STOP(■) button
35. OPEN/CLOSE button
36. SKIP/SEARCH DOWN (⏮) button
37. SKIP/SEARCH UP (⏭) button
38. AUDIO button
39. SLOW button
40. ANGLE button
41. A-B REPEAT button
42. PAL/NTSC button
43. SURROUND MODE button
44. SLEEP button
45. MUTING button
46. PBC/RT button
47. MPX button

4. Connecting to Equipment

- Connecting to TV

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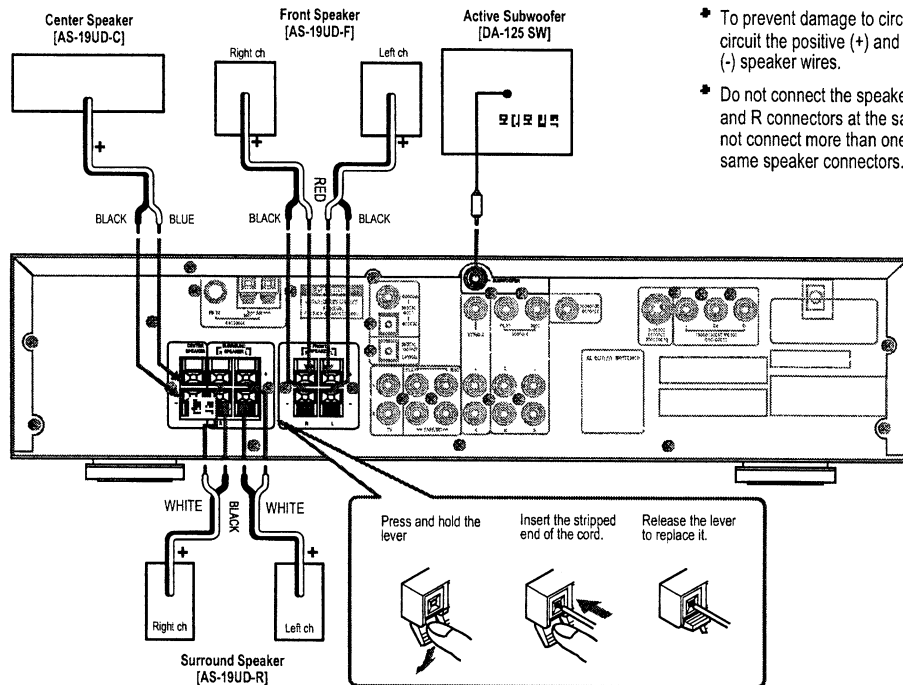


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4. Connecting to Equipment

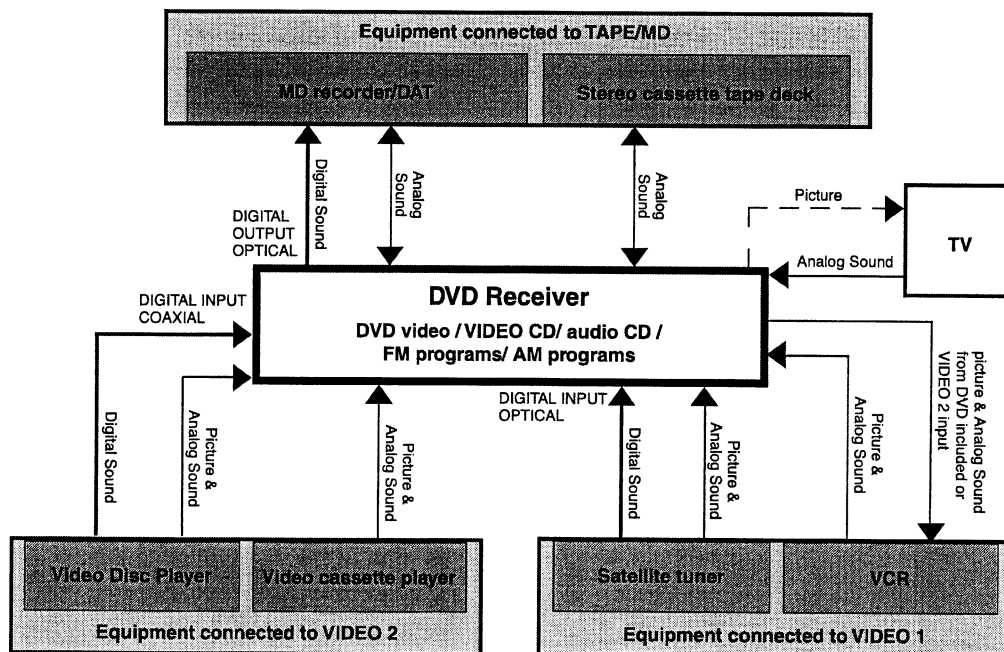
- Connecting to Speaker

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- To prevent damage to circuits, never short-circuit the positive (+) and negative (-) speaker wires.
- Do not connect the speaker cable to the L and R connectors at the same time and do not connect more than one speaker to the same speaker connectors.

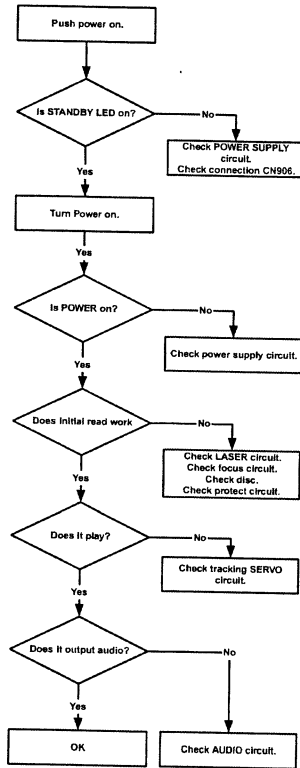
- Connecting to Recording Equipment



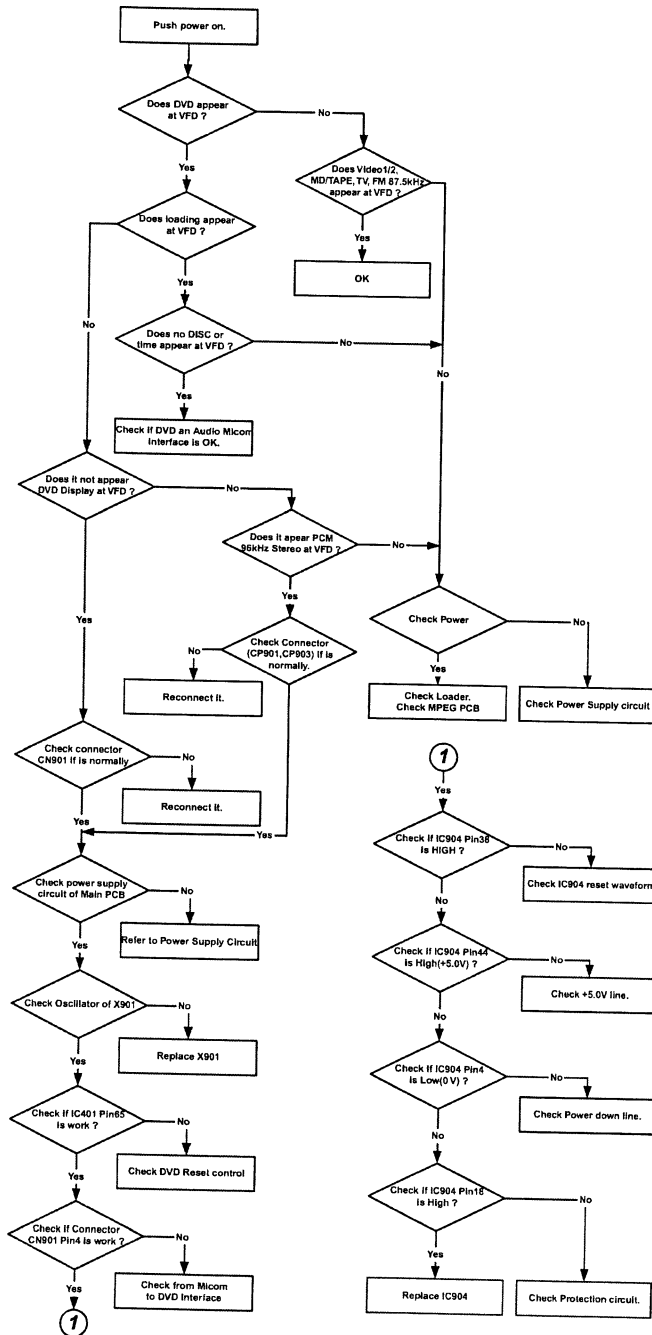
5. Trouble Shooting Guide

- Audio Part DV-135

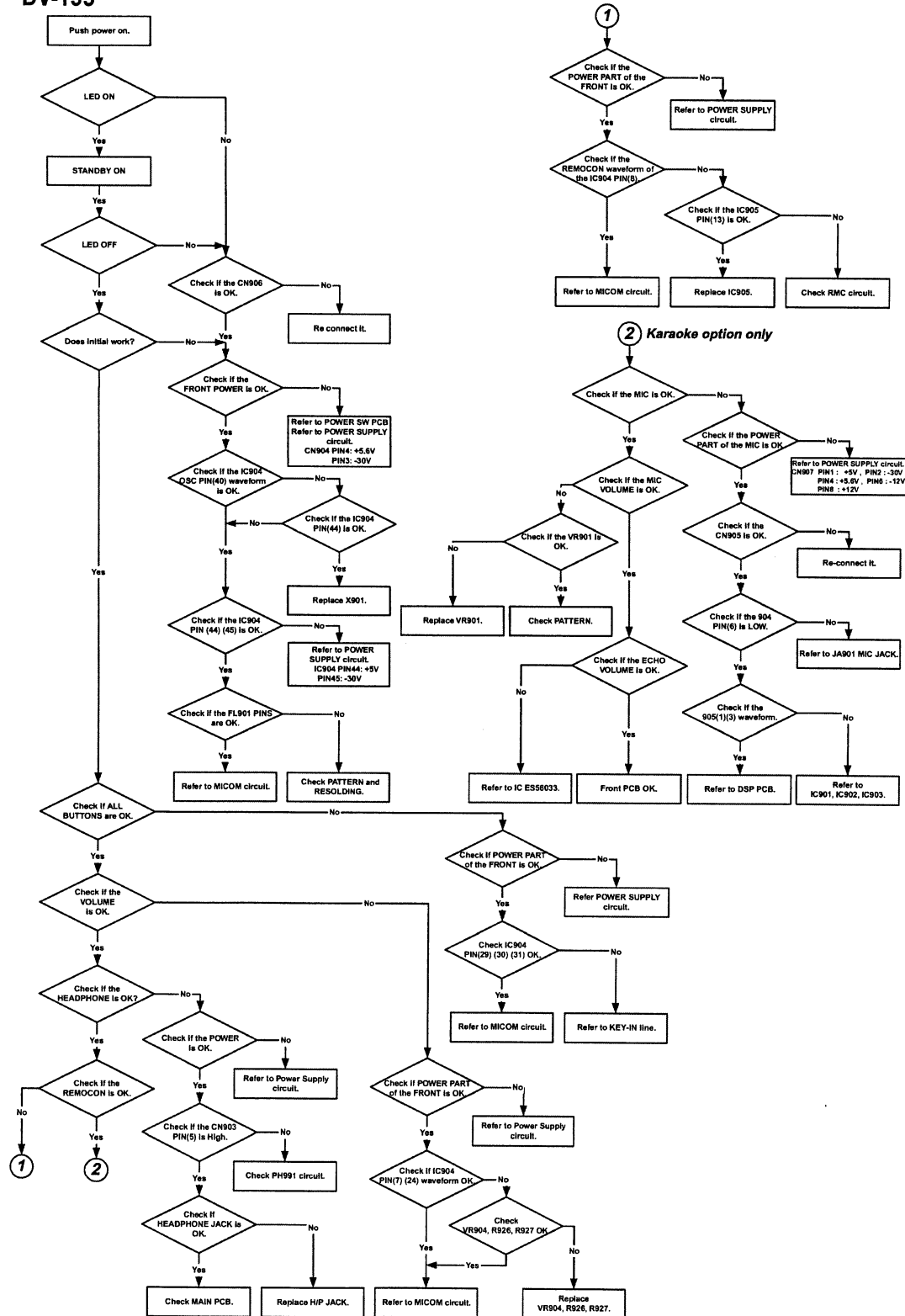
1. Basic Operating



2. Front Micom Circuit



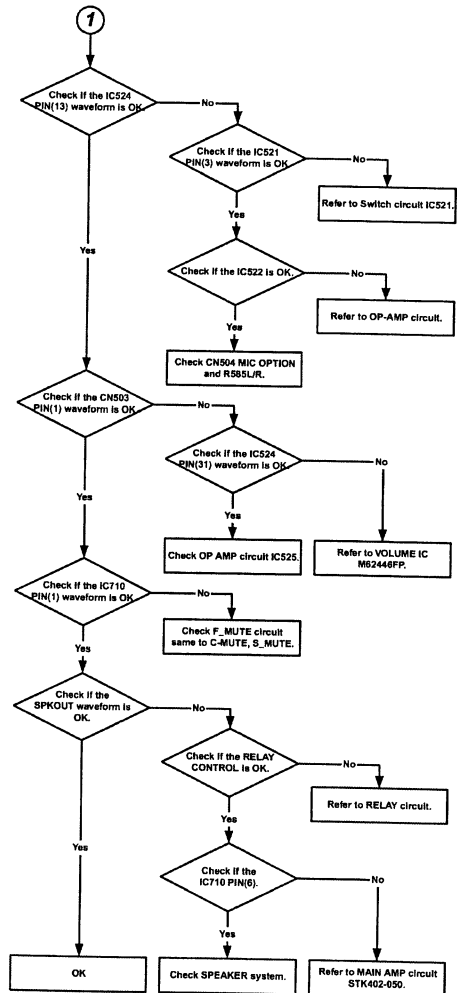
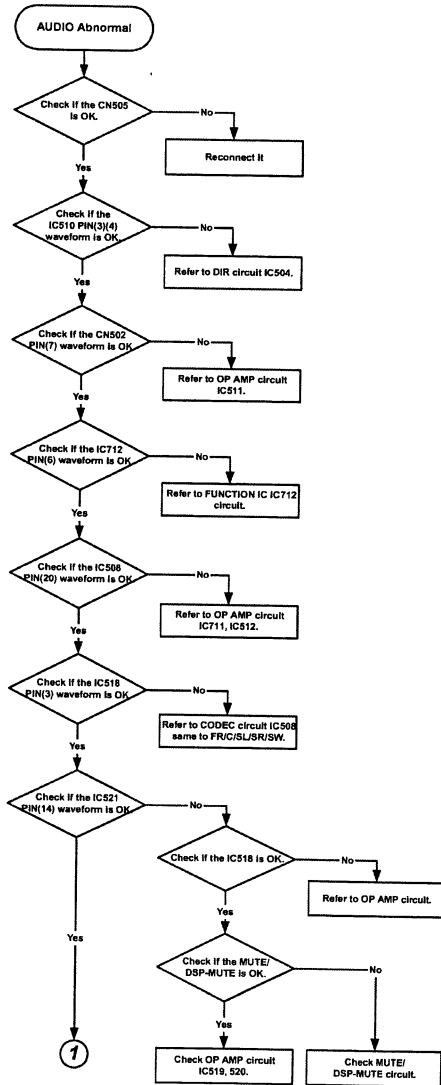
-. Front Circuit



5. Trouble Shooting Guide

- Audio Part DV-135

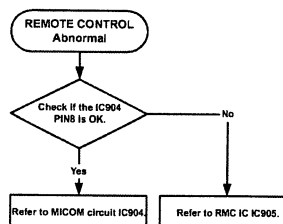
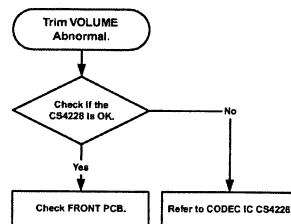
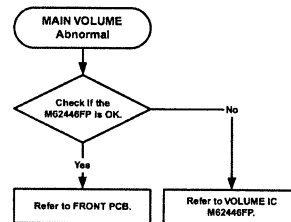
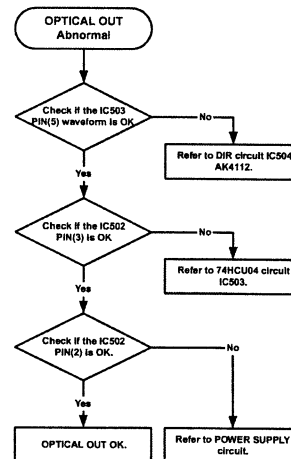
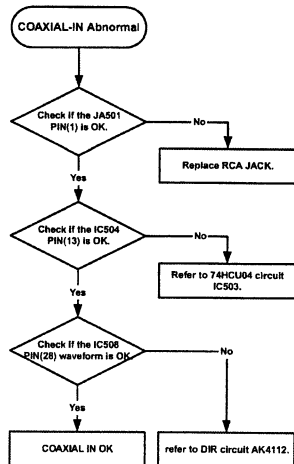
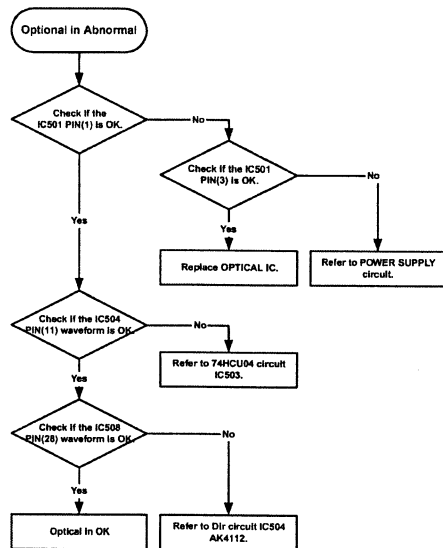
1. DVD Abnormal



5. Trouble Shooting Guide

- Audio Part

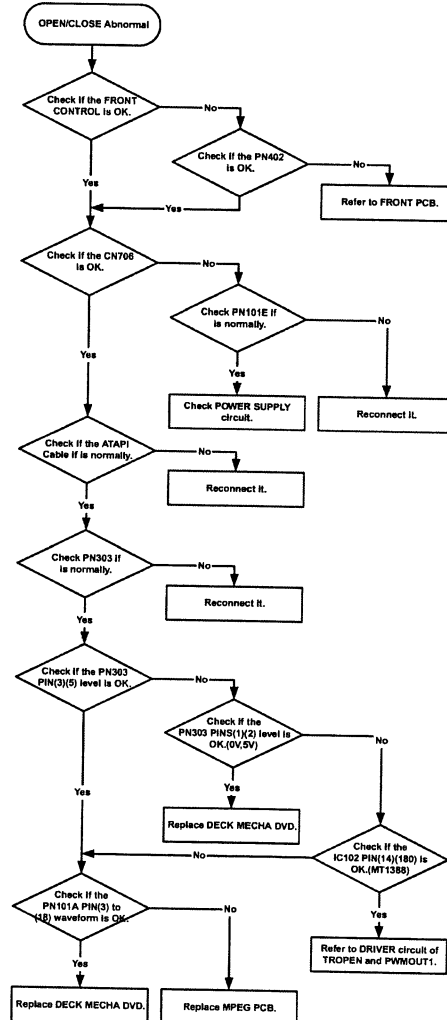
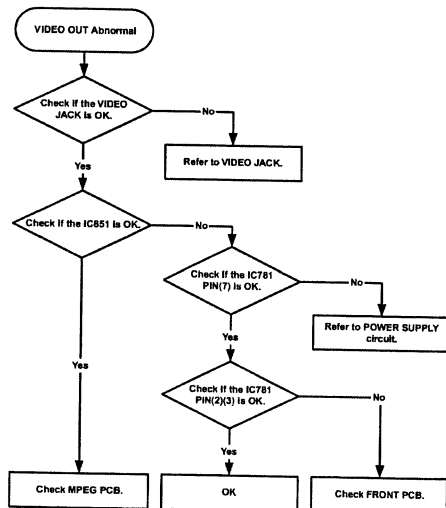
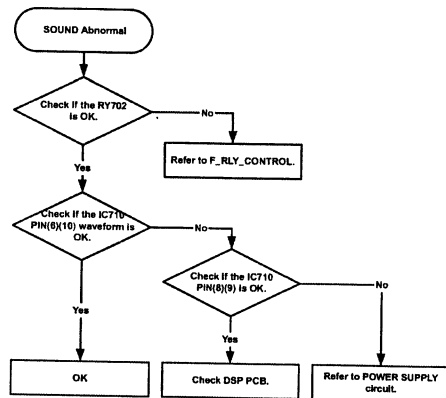
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5. Trouble Shooting Guide

- Audio Part

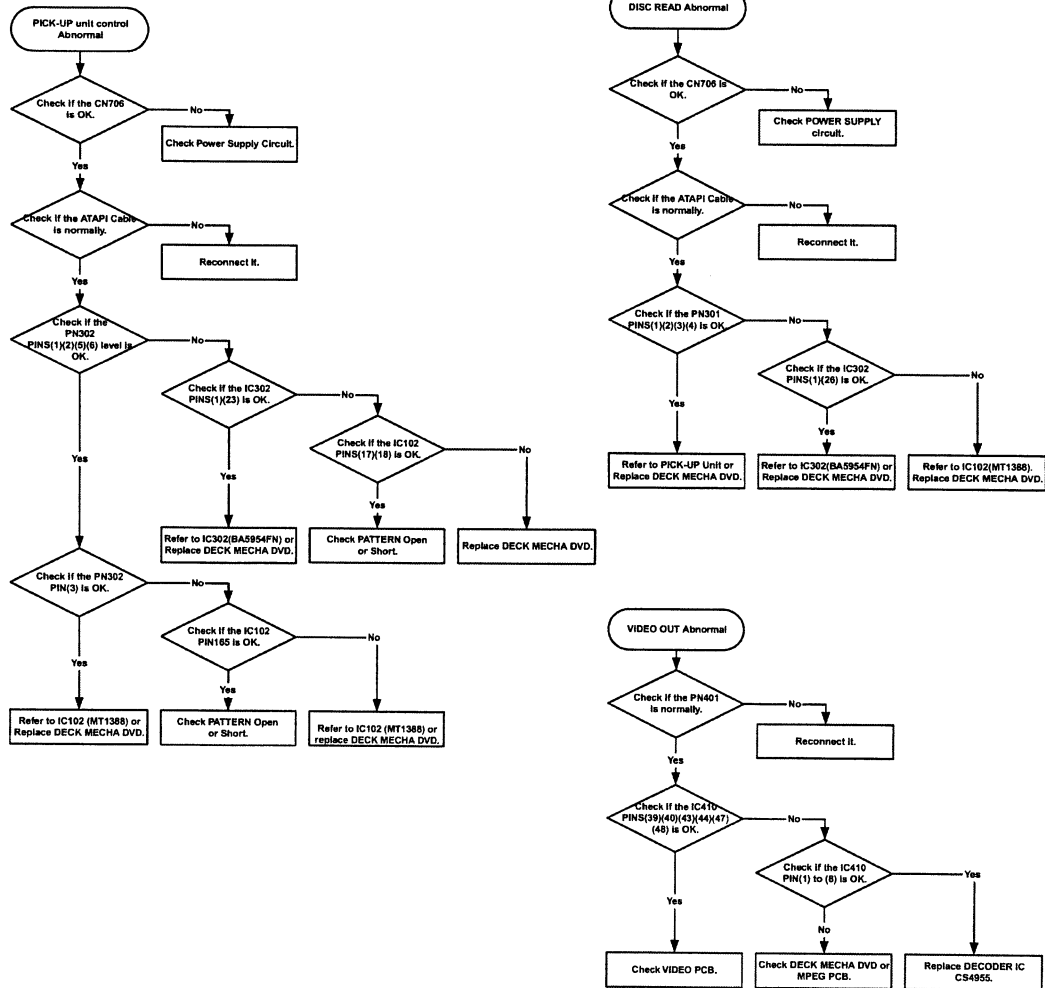
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5. Trouble Shooting Guide

-. Audio Part

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6. DVD Program Download Method

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INSERT THE UPDATE DISC INTO THE DISC TRAY, THEN THE DVD RECEIVER READS THE DISC AND UPDATE THE FIRMWARE ITSELF AS FOLLOWINGS.

@ INSERT THE UPDATE DISC.

NO	STATUS	VFD	MONITOR	SET CONDITION
1	SET THE KEY LOCK (TUN.PRESET+OPEN)	APPEAR LOCK MARK()	LOADING	DOOR CLOSE
2	DETECT THE UPDATE DISC	LOAD	LOADING	DOOR CLOSE
3	READ THE DISC	LOAD	DOWNLOAD FROM CDROM	DOOR CLOSE
4	COMPLETED THE READ	LOAD or NO DISPLAY	DOWNLOAD FROM CDROM	DOOR OPEN : 1)
5	COMPLETED THE UPDATE	LOAD	LOADING	DOOR CLOSE
6	SET THE KEY UNLOCK (TUN.PRESET+OPEN)	DISAPPEAR LOCK MARK	LOADING	DOOR CLOSE : 2)

NOTE :

- 1) AFTER DOOR OPEN, EJECT THE UPDATE DISC.
- 2) AFTER COMPLETED, POWER OUT AND IN AGAIN.

CAUTION :

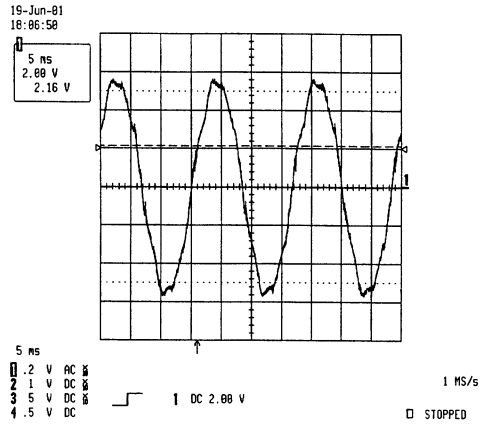
WHILE DOOR OPEN, IF CD DOOR IS CLOSED BY TOUCH, OR POWER BUTTON IS PRESSED THEN FLASH MEMORY WILL BE ERASED.

7. Waveforms of Major Check Method

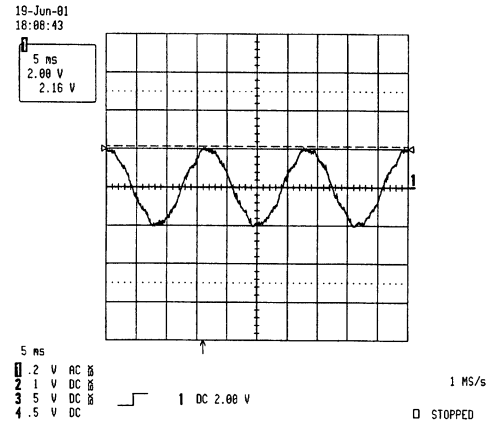
DV-135

※ TEST POINT : DVD TEST DISC " MDVD-W111 TRACK2 COLOR BAR "

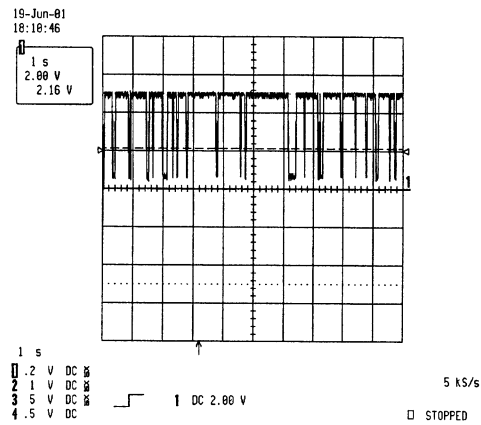
- Audio Out Signal Waveform



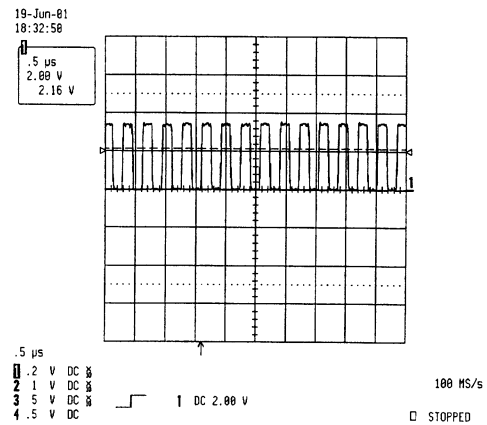
- DAC Output Signal Waveform



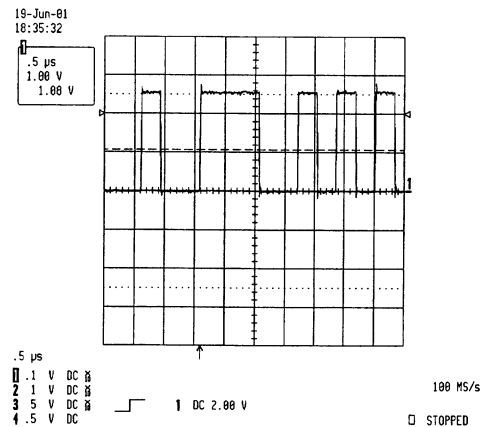
- Optical Output Audio Data Signal waveform



- L/R Clock Data Waveform During Normal Play



- Serial Data Output Waveform During Normal Play

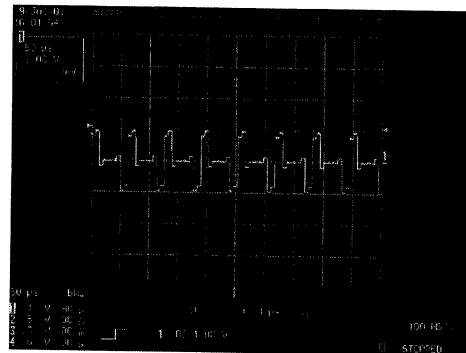
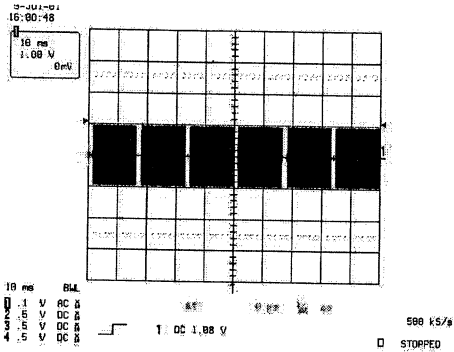


7. Waveforms of Major Check Method

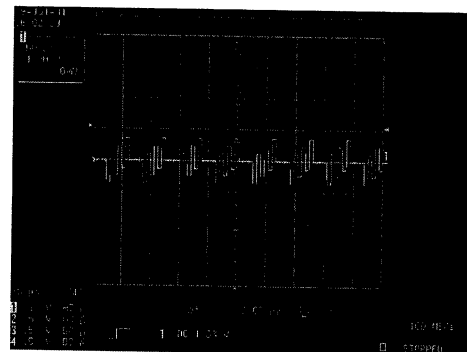
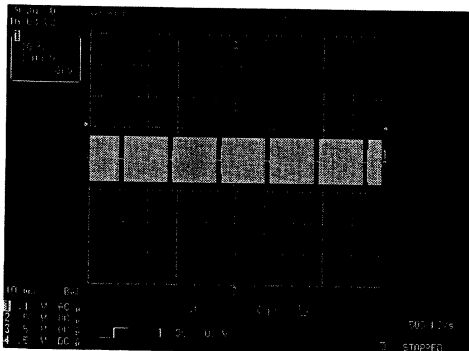
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※ TEST POINT : DVD TEST DISC " MDVD-W111 TRACK2 COLOR BAR "

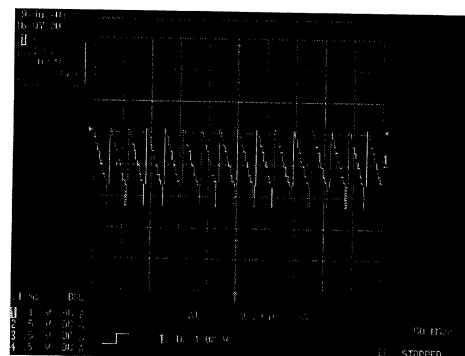
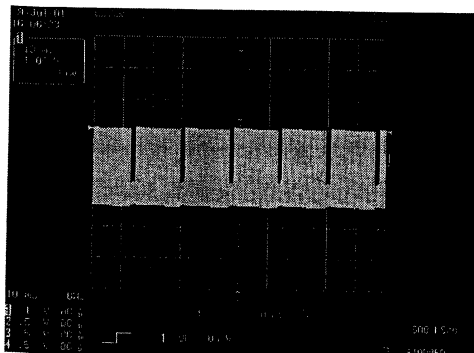
- Cr Output Data Waveform in Component Output



- Cb Output Data Waveform in Component Output



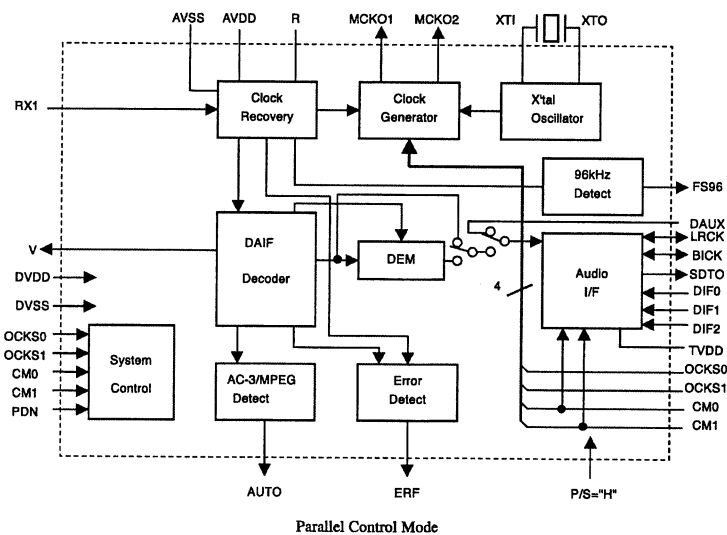
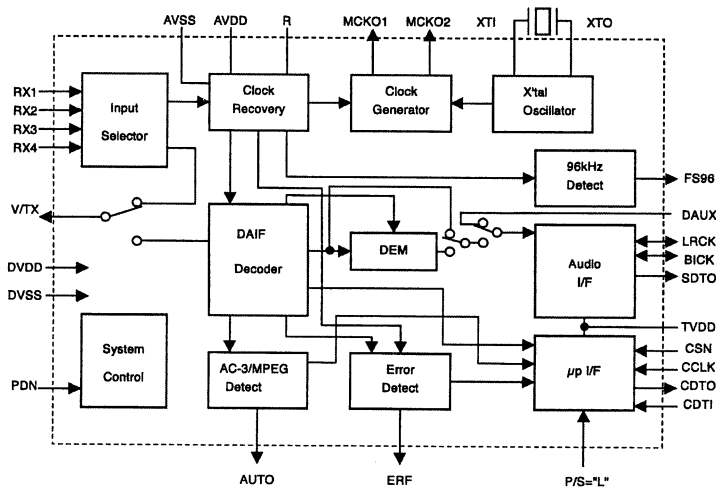
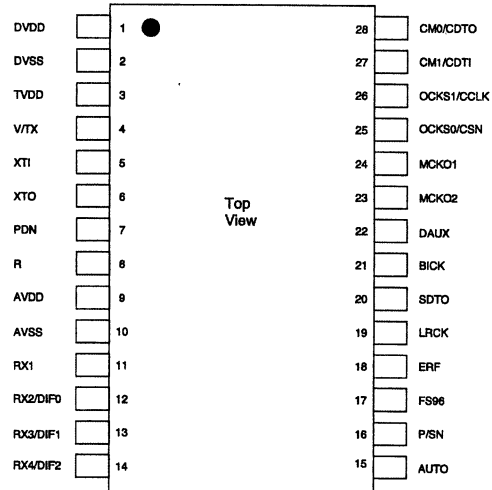
- Y Output Data Waveform in Component Output



8. Internal Block Diagram of ICs

DV-135

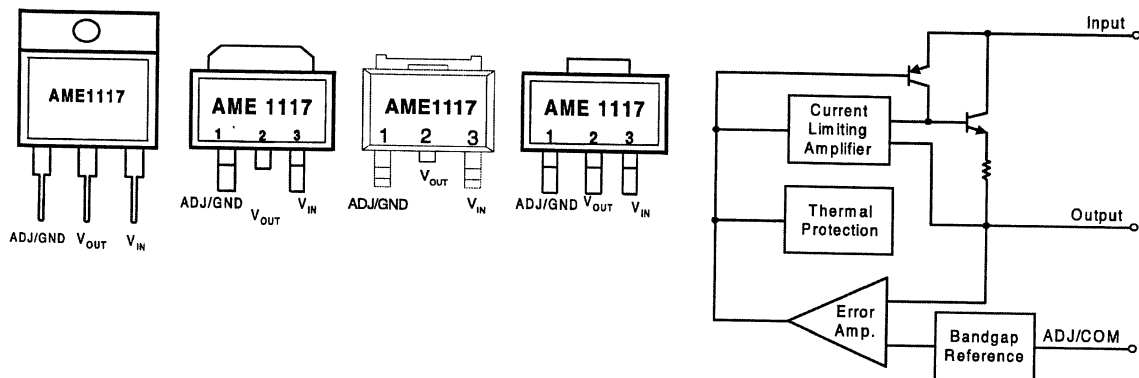
★ AK-4112A



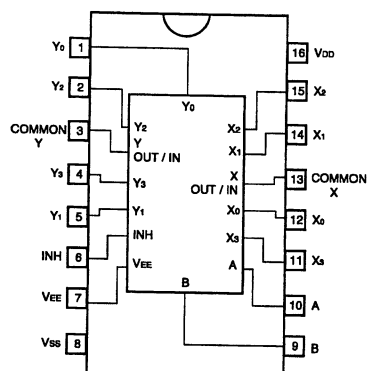
8. Internal Block Diagram of ICs

DV-135

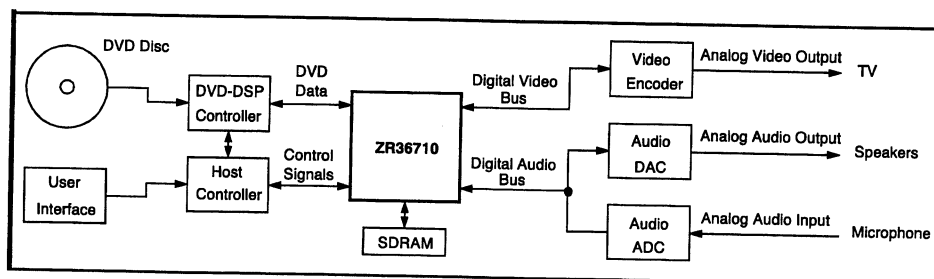
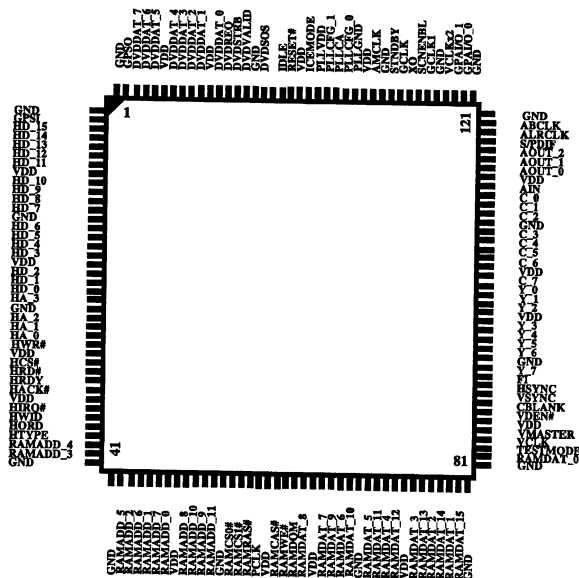
• AME1117



• BU4052BCF



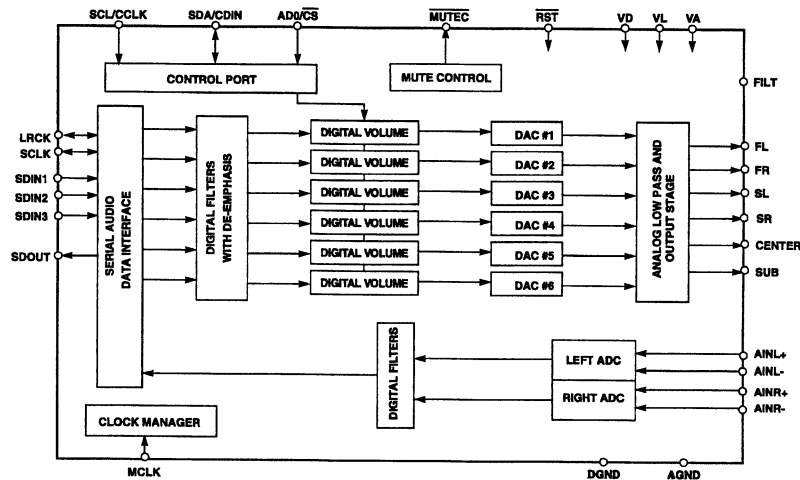
• ZR36710a



8. Internal Block Diagram of ICs

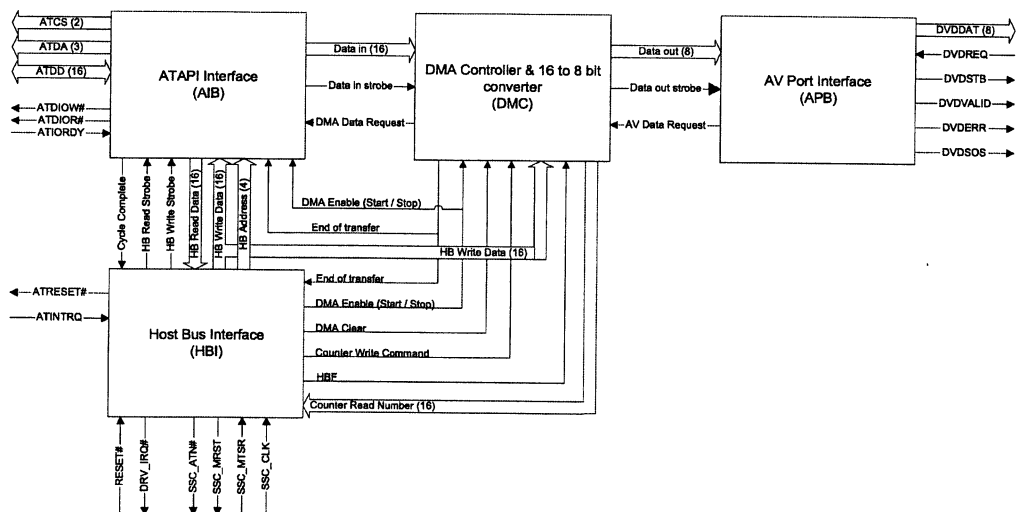
DV-135

• CS4228A



Serial Audio Data In 3	SDIN3	1	28	SUB	Analog Out #6, Subwoofer
Serial Audio Data In 2	SDIN2	2	27	CENTER	Analog Out #5, Center
Serial Audio Data In 1	SDIN1	3	26	SR	Analog Out #4, Surround Right
Serial Audio Data Out	SDOUT	4	25	SL	Analog Out #3, Surround Left
Serial Clock	SCLK	5	24	FR	Analog Out #2, Front Right
Left/Right Clock	LRCK	6	23	FL	Analog Out #1, Front Left
Digital Ground	DGND	7	22	AGND	Analog Ground
Digital Power	VD	8	21	VA	Analog Power
Digital Interface Power	VL	9	20	AINL+	Left Channel Analog Input+
Master Clock	MCLK	10	19	AINL-	Left Channel Analog Input-
SCL/CCLK	SCL/CCLK	11	18	FILT	Internal Voltage Filter
SDA/CDIN	SDA/CDIN	12	17	AINR-	Right Channel Analog Input-
AD0/CS	AD0/CS	13	16	AINR+	Right Channel Analog Input+
Reset	RST	14	15	MUTE_C	Mute Control

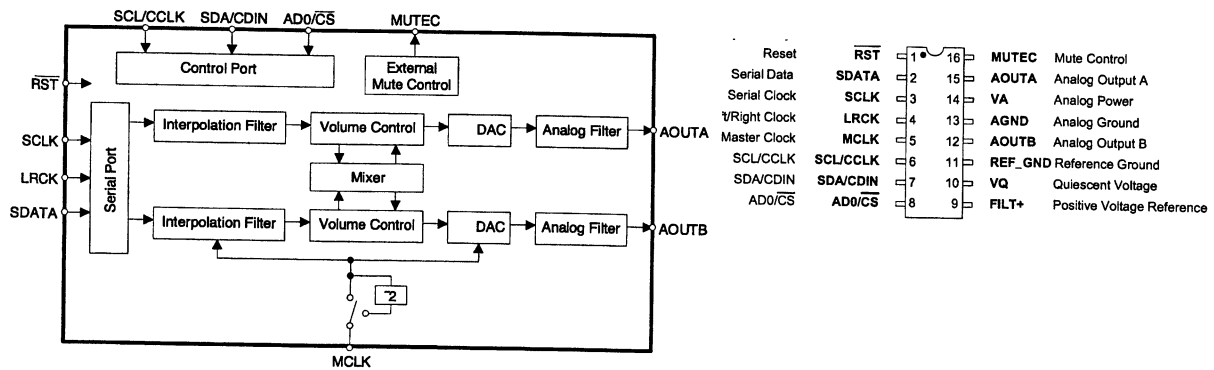
• ZR36701



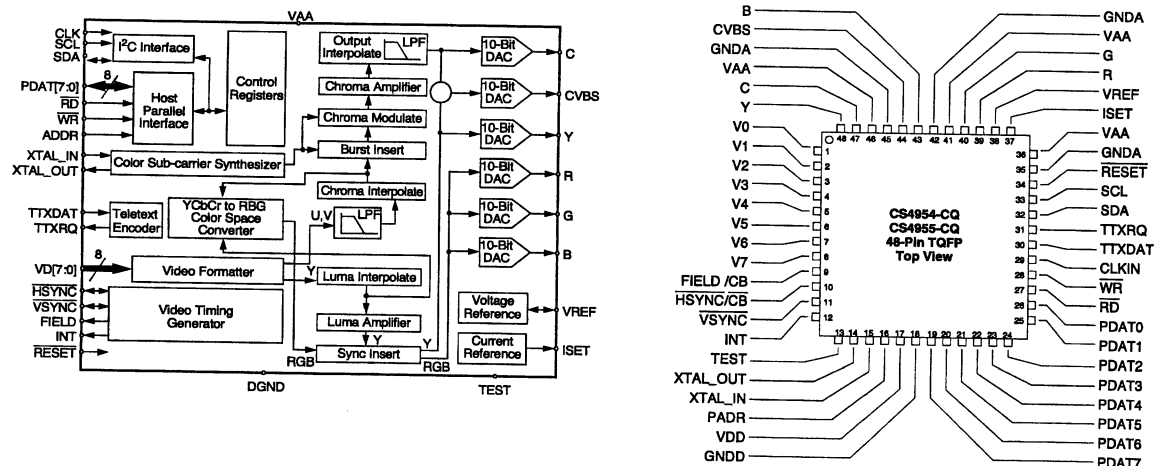
8. Internal Block Diagram of ICs

DV-135

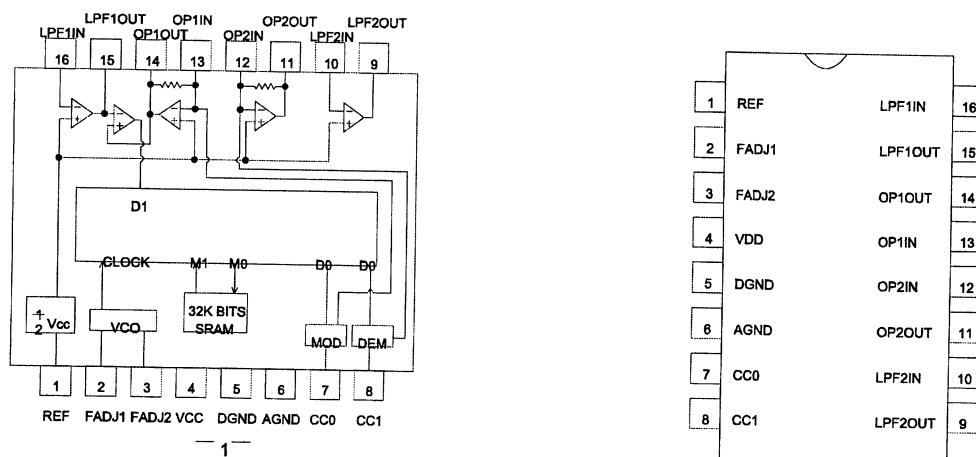
- CS434



✦ CS4955



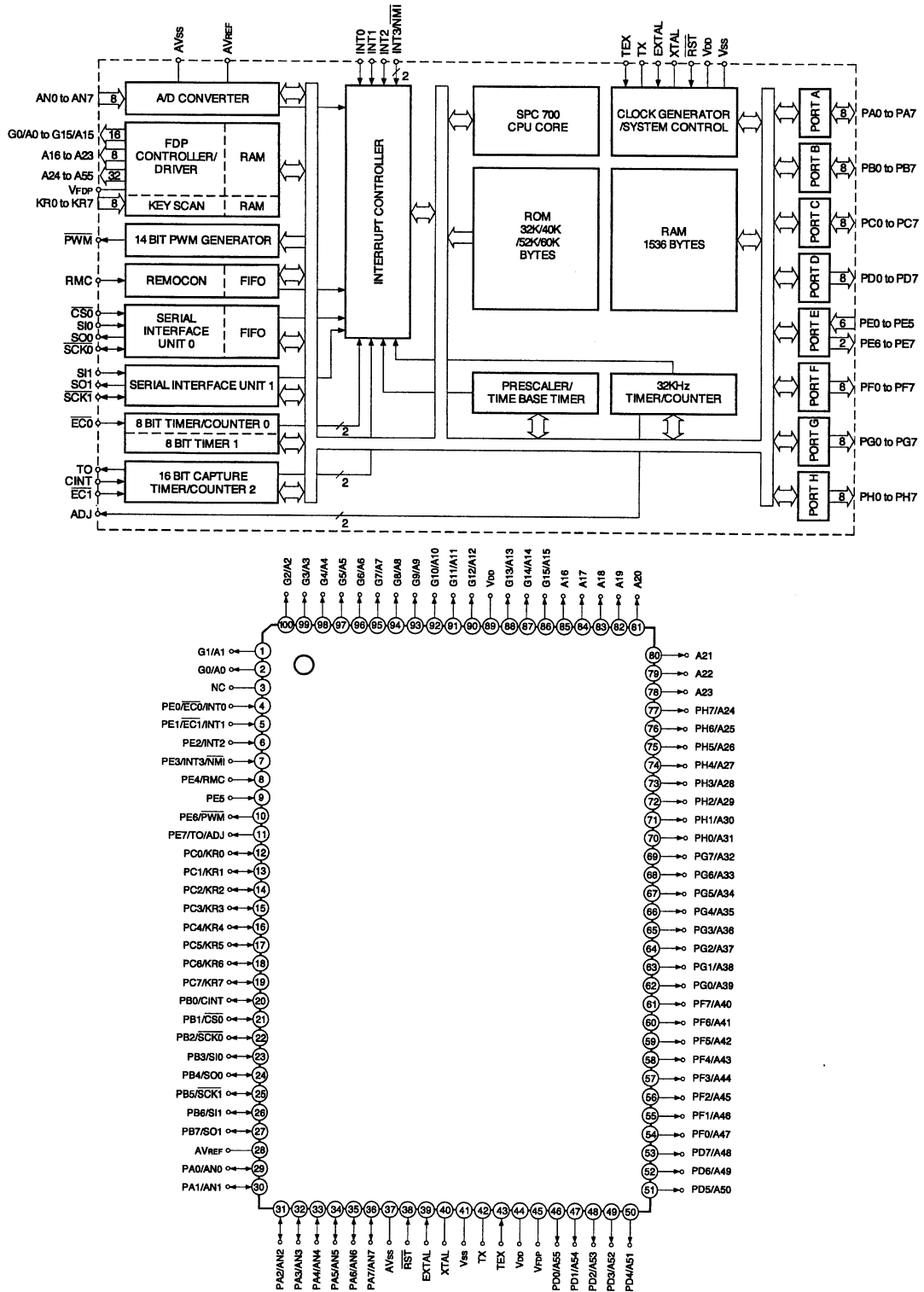
✦ ES56033



8. Internal Block Diagram of ICs

DV-135

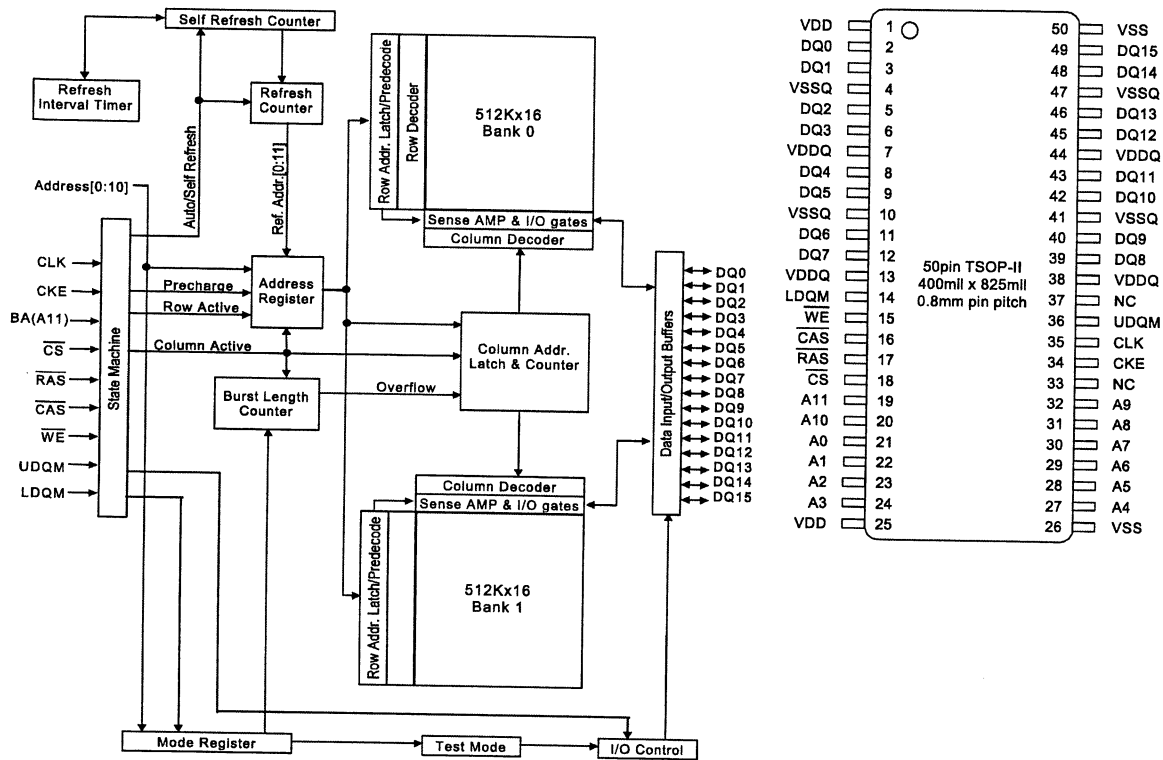
• CXP82852



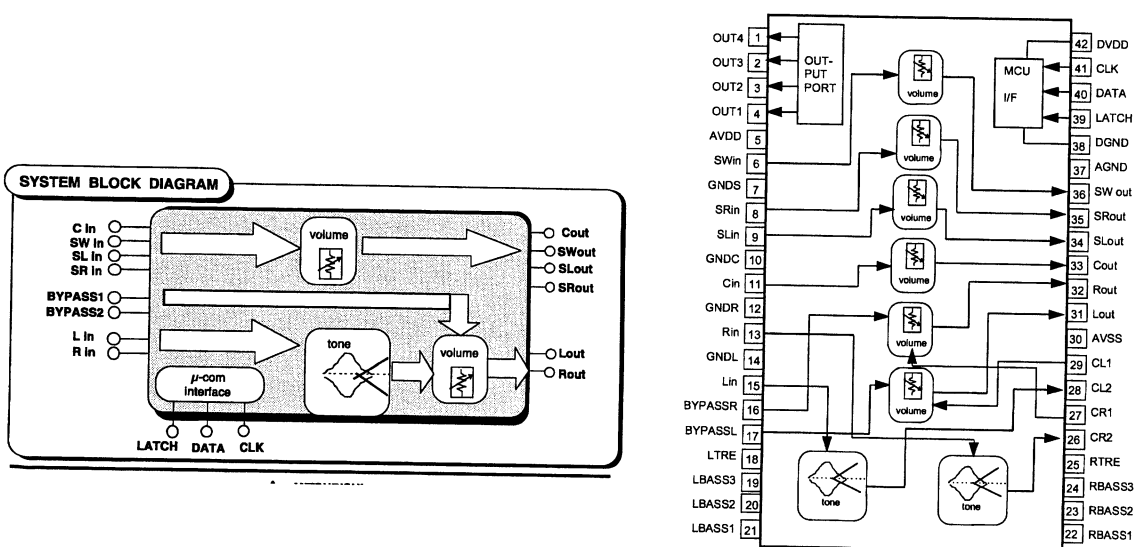
8. Internal Block Diagram of ICs

DV-135

* HY57V161610DTC-8



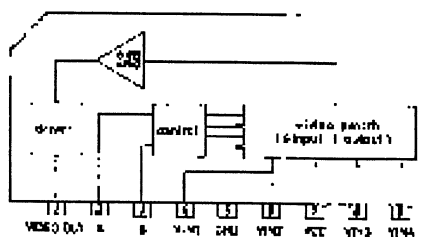
* M62446FP



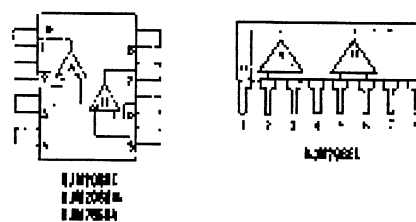
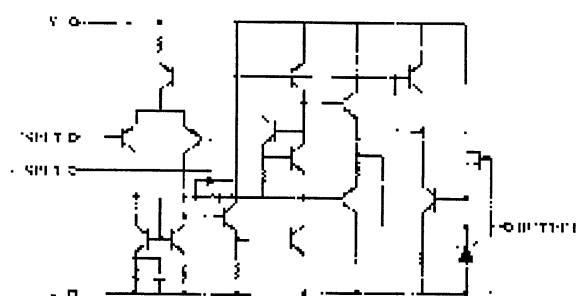
8. Internal Block Diagram of ICs

DV-135

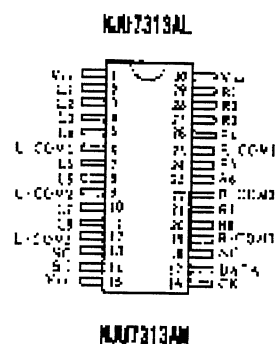
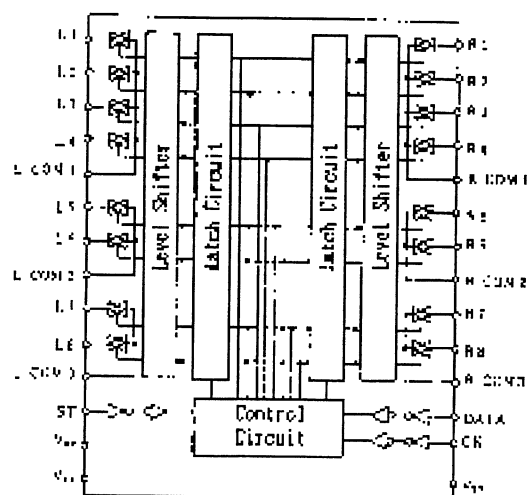
• LA7952



• NJM2068



• NJU7313A



9. IC Voltage Chart

DV-135

1. IC402

ZR36710

PIN	PLAY	STOP	PIN	PLAY	STOP	PIN	PLAY	STOP	PIN	PLAY	STOP
1	0.0	0.0	41	0.0	0.0	81	0.0	0.0	121	0.0	0.0
2	0.0	0.0	42	0.7	0.0	82	1.0	0.6	122	0.0	0.0
3	2.8	2.8	43	0.4	0.0	83	3.3	3.3	123	0.0	0.0
4	2.8	2.8	44	0.5	0.0	84	1.7	1.7	124	1.7	1.7
5	2.8	2.8	45	0.4	0.0	85	3.3	3.3	125	0.0	0.0
6	2.8	2.8	46	0.5	0.0	86	3.3	3.3	126	1.5	1.5
7	3.3	3.3	47	0.4	0.0	87	0.0	0.0	127	0.0	0.0
8	3.3	3.3	48	3.3	3.3	88	1.4	1.2	128	1.3	1.3
9	2.8	2.8	49	0.4	0.0	89	3.2	3.2	129	1.5	1.5
10	2.8	2.8	50	2.0	2.5	90	3.0	3.0	130	5.0	5.0
11	2.8	2.8	51	0.4	0.0	91	1.6	1.6	131	0.0	0.0
12	2.5	2.5	52	0.8	0.0	92	1.5	2.0	132	1.7	1.7
13	0.0	0.0	53	0.0	0.0	93	0.0	0.0	133	3.3	3.3
14	2.1	2.1	54	3.0	3.3	94	1.5	1.5	134	0.0	0.0
15	2.6	2.6	55	3.1	3.3	95	1.0	1.0	135	0.0	0.0
16	2.6	2.6	56	3.1	3.3	96	1.7	1.7	136	1.9	1.9
17	2.6	2.6	57	1.5	0.0	97	1.0	1.0	137	0.0	0.0
18	3.3	3.3	58	3.3	3.3	98	3.3	3.3	138	3.3	3.3
19	2.3	2.3	59	3.2	3.2	99	1.0	1.0	139	3.3	3.3
20	2.2	2.2	60	3.1	3.3	100	1.0	1.0	140	3.3	3.3
21	1.8	1.8	61	0.0	0.0	101	1.0	1.0	141	5.0	5.0
22	2.3	2.6	62	1.1	0.6	102	0.0	0.0	142	0.0	3.3
23	0.0	0.0	63	3.3	3.3	103	3.3	3.3	143	0.0	0.0
24	2.5	2.3	64	1.0	0.6	104	0.0	0.0	144	4.0	4.0
25	2.5	2.5	65	1.0	3.3	105	0.0	0.0	145	0.0	0.0
26	2.5	2.5	66	0.8	0.8	106	0.0	0.0	146	4.3	5.0
27	5.0	5.0	67	0.9	0.5	107	0.0	0.0	147	1.7	1.7
28	3.3	3.3	68	0.0	0.0	108	0.0	0.0	148	2.0	3.3
29	5.0	5.0	69	0.6	0.6	109	0.0	0.0	149	2.5	5.0
30	3.3	3.6	70	1.0	0.6	110	0.0	0.0	150	3.3	3.3
31	1.0	1.0	71	0.9	0.6	111	0.0	0.0	151	2.3	0.0
32	3.3	3.3	72	1.1	0.5	112	0.0	0.0	152	2.3	0.0
33	3.3	3.3	73	3.3	3.3	113	3.3	3.3	153	2.3	5.0
34	5.0	5.0	74	1.0	0.6	114	1.1	0.0	154	2.3	5.0
35	0.0	0.0	75	1.5	0.5	115	0.0	0.0	155	3.3	3.3
36	0.0	0.0	76	1.0	0.5	116	0.0	0.0	156	2.3	0.0
37	3.3	3.3	77	1.0	0.6	117	1.6	1.6	157	2.3	5.0
38	0.7	0.0	78	1.2	0.6	118	1.6	1.6	158	2.3	0.0
39	0.7	0.7	79	1.0	0.8	119	1.6	1.6	159	0.0	0.0
40	0.0	0.0	80	0.0	0.0	120	0.0	0.0	160	0.0	0.0

9. IC Voltage Chart

DV-135

2. IC403 A43L0616AV-7

PIN	PLAY	STOP	PIN	PLAY	STOP	PIN	PLAY	STOP	PIN	PLAY	STOP
1	3.3	3.3	14	0.0	0.0	27	0.7	0.0	40	1.0	3.3
2	1.0	0.6	15	3.3	3.3	28	0.7	0.0	41	0.0	0.0
3	1.2	0.6	16	3.3	3.3	29	0.5	0.0	42	0.9	0.5
4	0.0	0.0	17	0.0	0.0	30	0.5	0.0	43	1.0	0.6
5	1.0	0.5	18	0.8	0.0	31	0.4	0.0	44	3.3	3.3
6	1.0	0.6	19	0.8	0.0	32	0.4	0.0	45	1.1	0.5
7	3.3	3.3	20	2.0	2.5	33	0.0	0.0	46	1.5	0.5
8	0.9	0.6	21	0.4	0.0	34	3.3	3.3	47	0.0	0.0
9	0.6	0.6	22	0.4	0.0	35	1.6	1.6	48	1.0	0.6
10	0.0	0.0	23	0.4	0.0	36	0.0	0.0	49	1.0	0.8
11	0.8	0.6	24	0.7	0.7	37	0.0	0.0	50	0.0	0.0
12	1.0	0.6	25	3.3	3.3	38	3.3	3.3			
13	3.3	3.3	26	0.0	0.0	39	1.1	0.6			

3. IC409 ZR36701

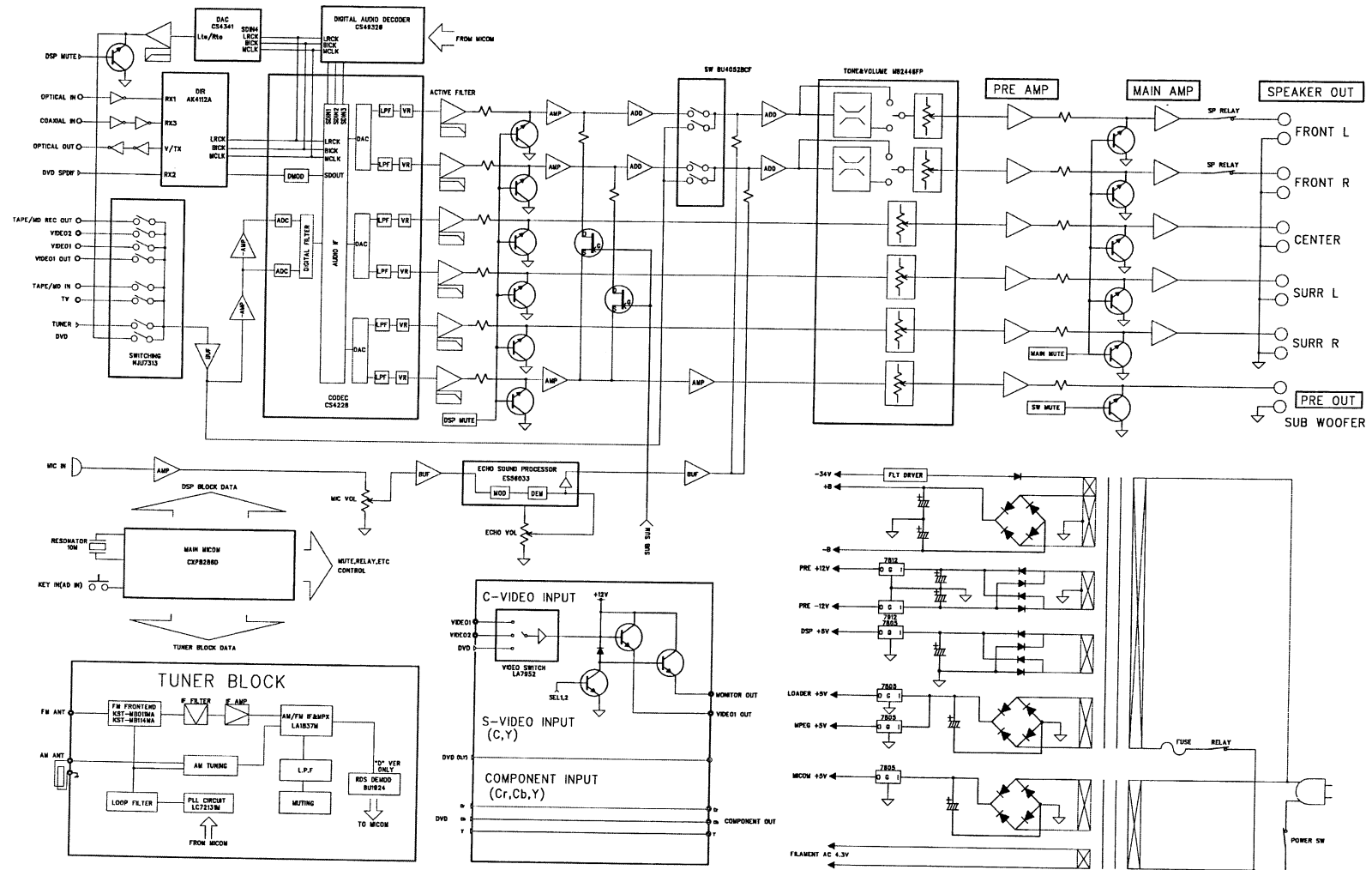
PIN	PLAY	STOP	PIN	PLAY	STOP	PIN	PLAY	STOP	PIN	PLAY	STOP
1	4.9	4.9	17	2.5		33	4.9	4.9	49	4.9	5.0
2			18	2.5		34	2.0		50	4.9	5.0
3			19	2.5	4.9	35	4.9	5.0	51	4.9	5.0
4			20			36	4.9	5.0	52	4.9	4.9
5			21	2.5	4.9	37	4.9	5.0	53	4.9	5.0
6	4.9	4.9	22	2.5	4.9	38	4.9	5.0	54	4.9	4.9
7			23	2.5		39	4.9	5.0	55	4.9	4.9
8	1.7	1.7	24	4.9	4.9	40	4.9	5.0	56	4.9	4.9
9			25	2.5		41			57		
10	4.9	4.9	26	2.5		42	4.9	5.0	58		
11	4.9	4.9	27	3.0	3.3	43	4.9	5.0	59		
12			28			44	4.9	5.0	60		
13			29	1.7	1.7	45	4.9	5.0	61		
14	4.9	4.9	30			46			62	4.9	4.9
15			31	4.9	4.9	47	4.9	5.0	63	4.9	4.9
16			32	4.9	4.9	48	4.9	5.0	64		

4. IC406 A617308S

PIN	PLAY	STOP	PIN	PLAY	STOP	PIN	PLAY	STOP	PIN	PLAY	STOP
1	4.0	4.0	9	2.4	2.4	17	2.5	2.5	25	2.2	2.2
2	4.0	4.0	10	2.4	2.4	18	2.5	2.5	26	2.5	2.5
3	4.3	4.3	11	2.5	2.5	19	2.0	2.0	27	2.5	2.5
4	2.9	2.9	12	2.2	2.2	20	2.0	2.0	28	1.7	1.7
5	2.5	2.5	13	1.8	1.8	21	2.5	2.5	29	5.0	5.0
6	2.9	2.9	14	2.2	2.2	22	0.0	0.0	30	5.0	5.0
7	2.0	2.0	15	2.5	2.5	23	2.4	2.4	31	4.0	4.0
8	2.5	2.5	16	0.0	0.0	24	3.5	3.5	32	5.0	5.0

10. Block Diagram

DV-135



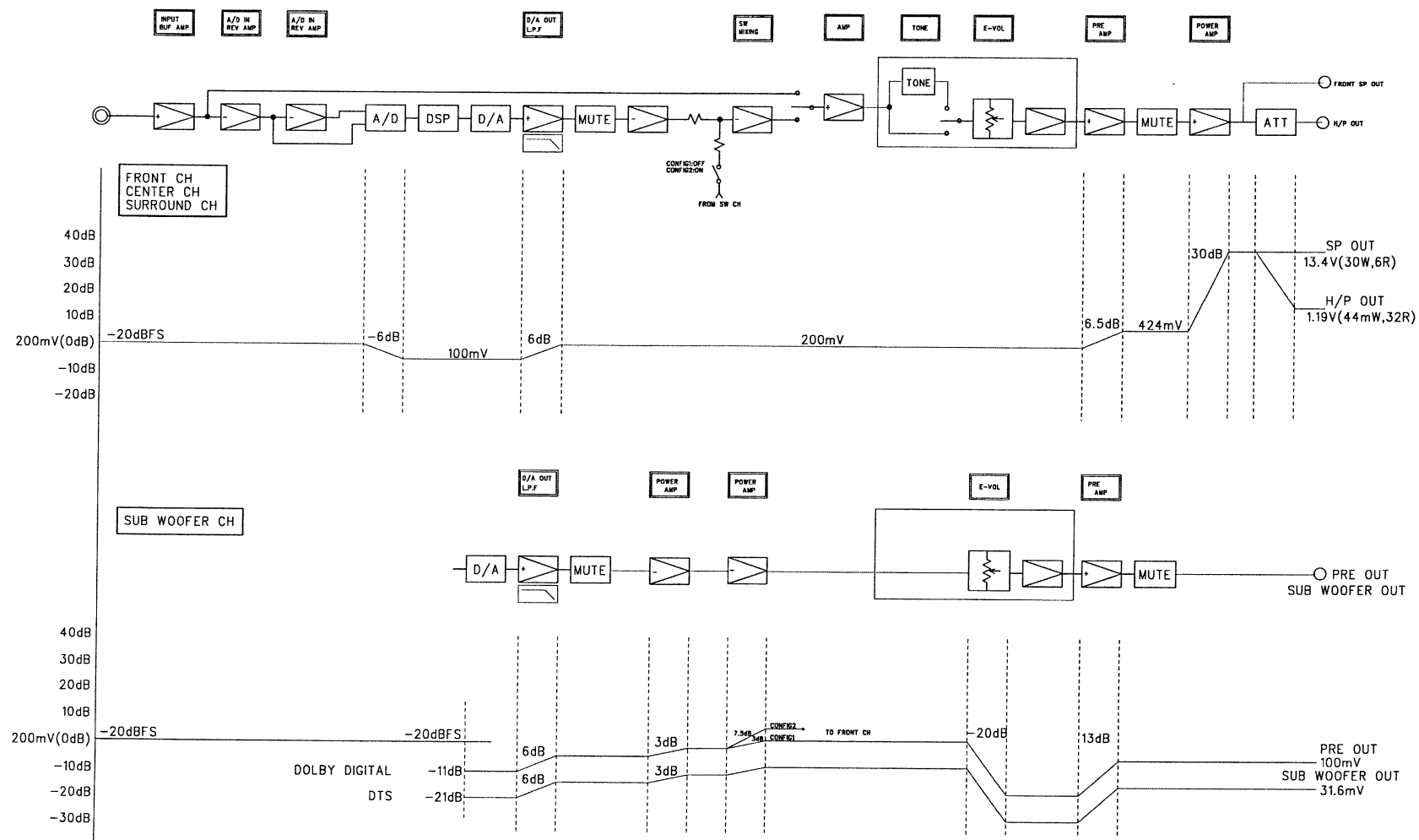
DV-135



12. Level Diagram

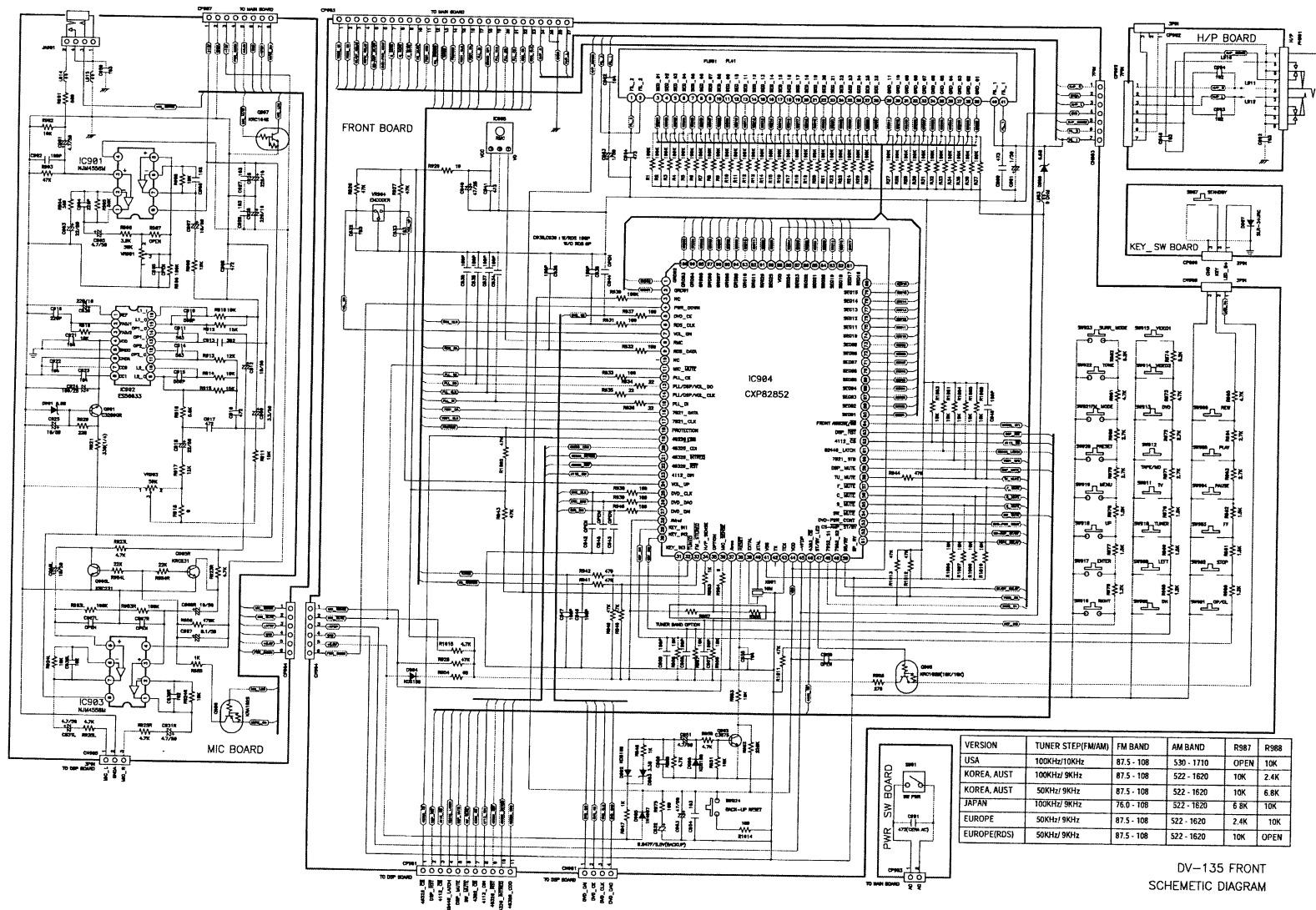
-. LEVEL Diagram

DV-135



13. Schematic Diagram

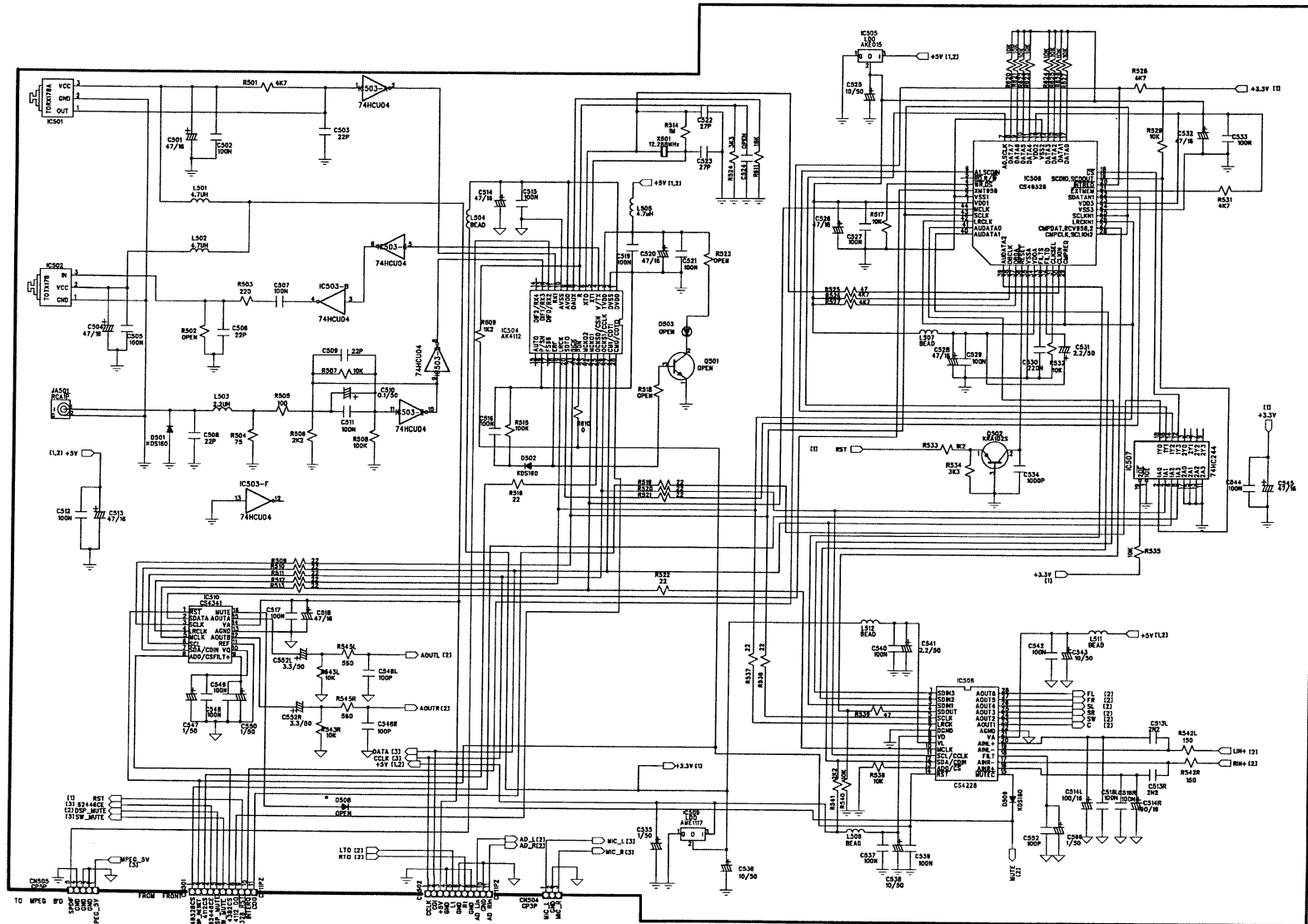
-. FRONT
DV-135



DV-135 FRONT
SCHEMATIC DIAGRAM

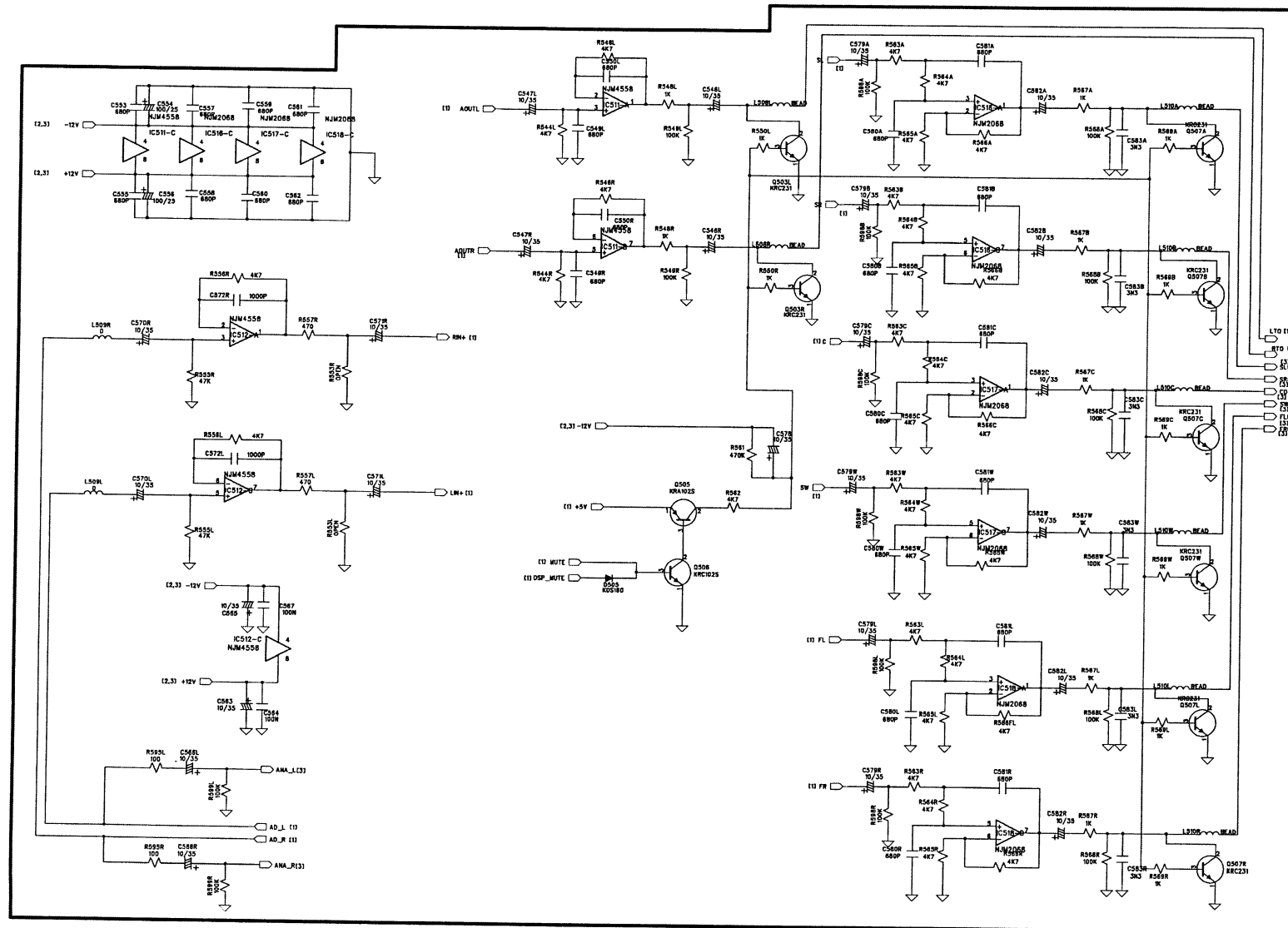
13. Schematic Diagram

- DSP-1
DV-135

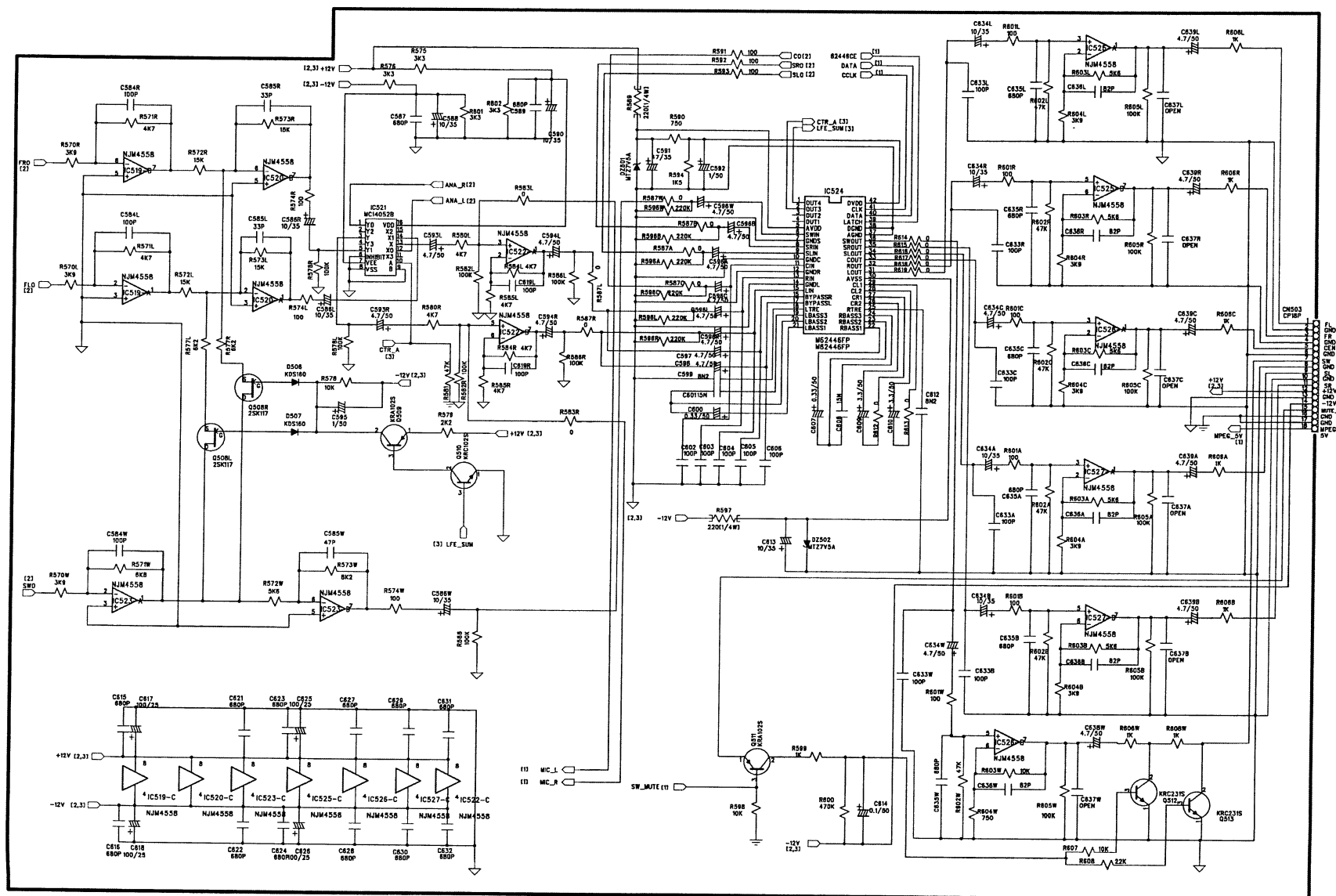


13. Schematic Diagram

-. DSP-2
DV-135

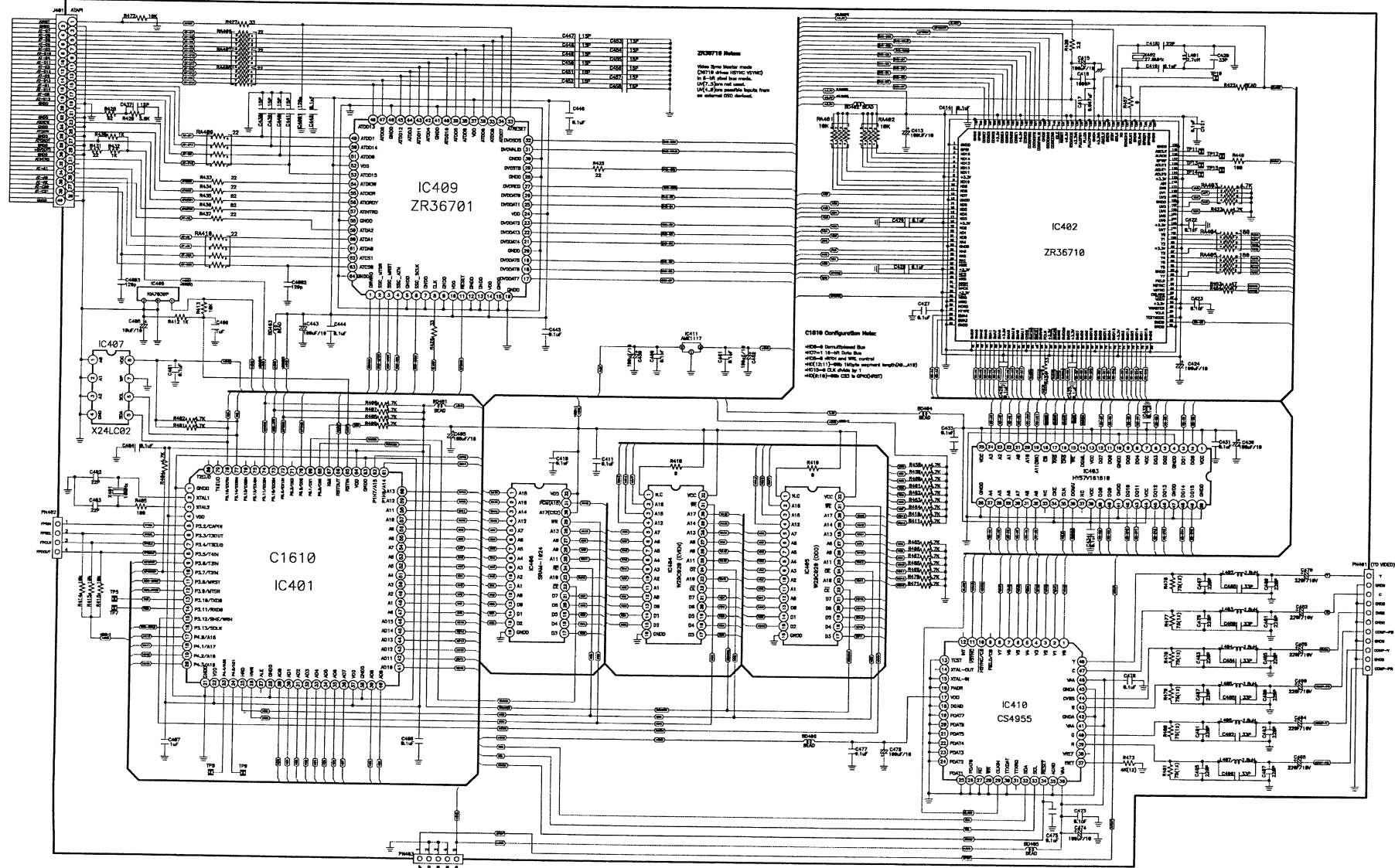


- DSP-3
DV-135



13. Schematic Diagram

- MPEG
DV-135



1) Power Schematic Diagram

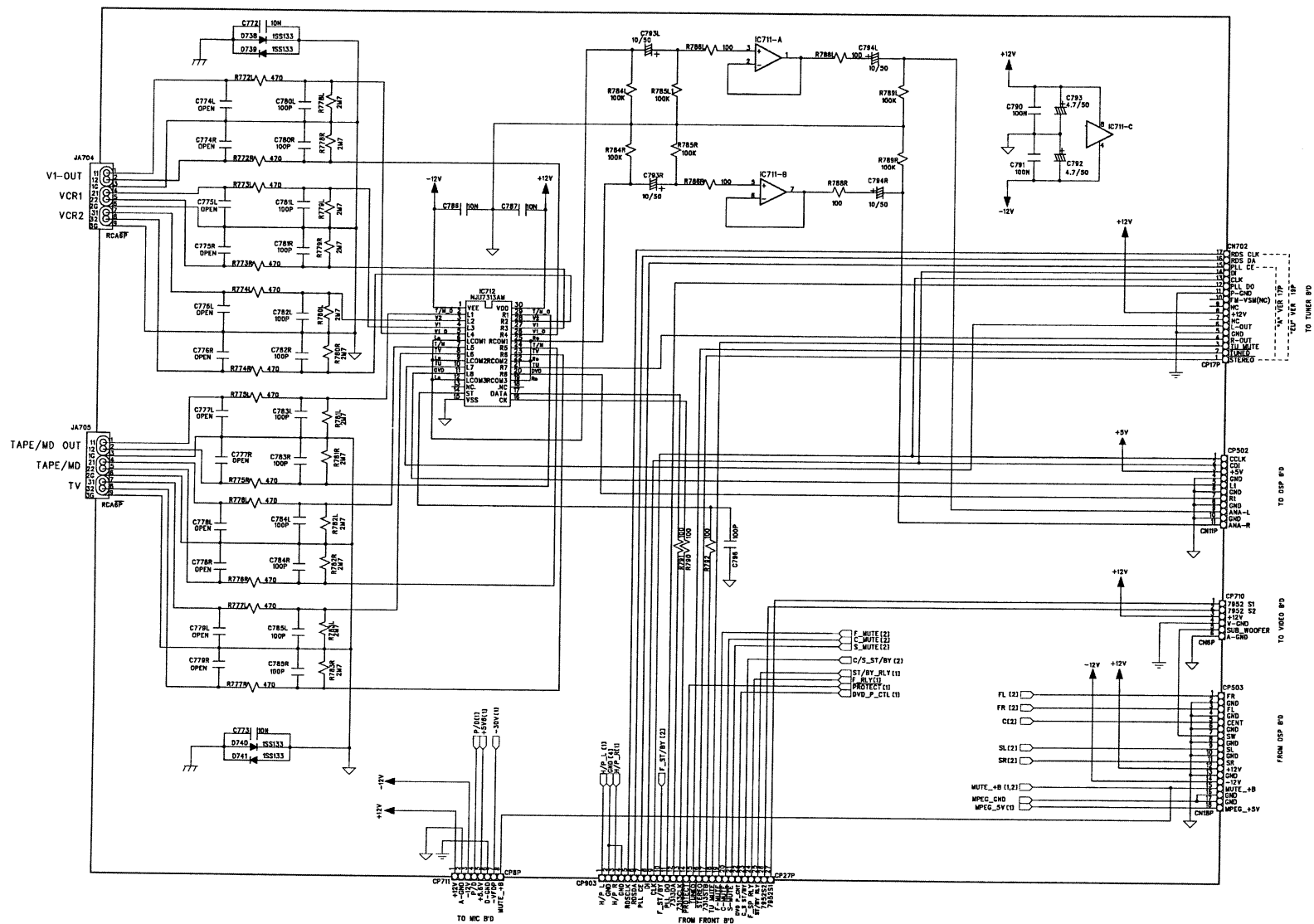


2) Amp Schematic Diagram



13. Schematic Diagram

- Main Schematic Diagram
- 3) Input Schematic Diagram



4) Video Schematic Diagram

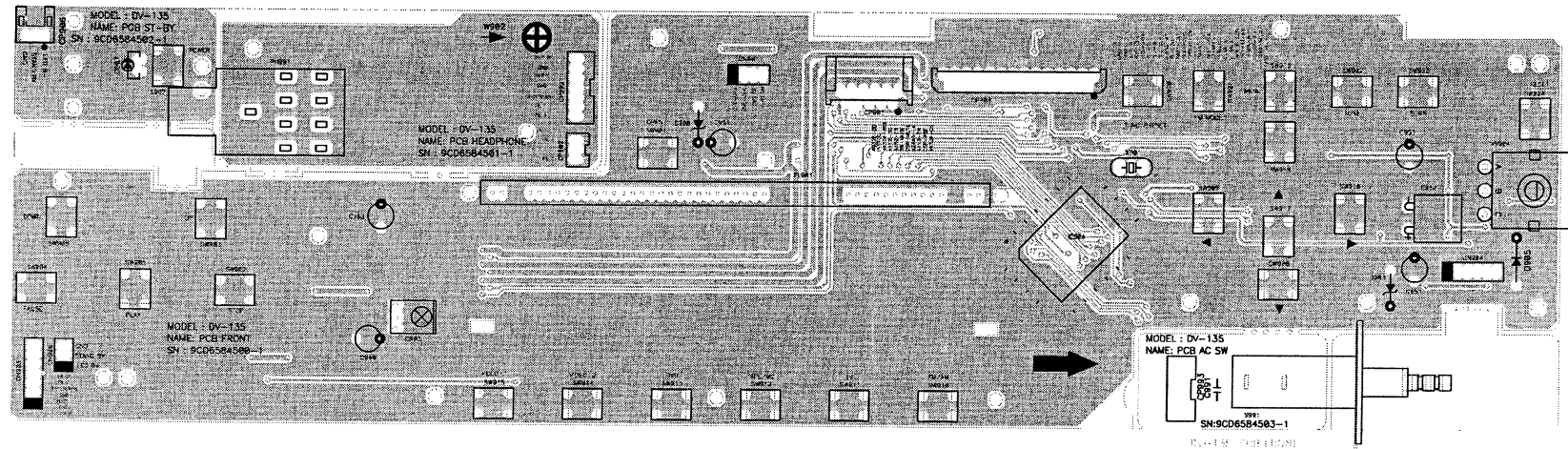


14. Printed Circuit Diagram

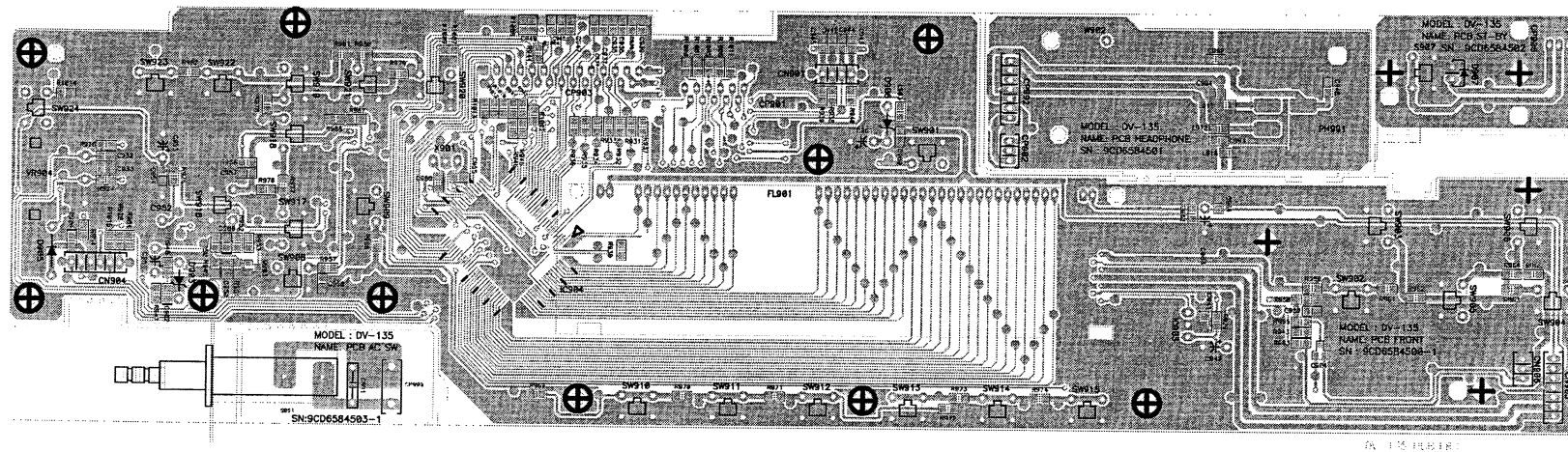
. Front PCB

DV-135 Front PCB

1-1) TOP View

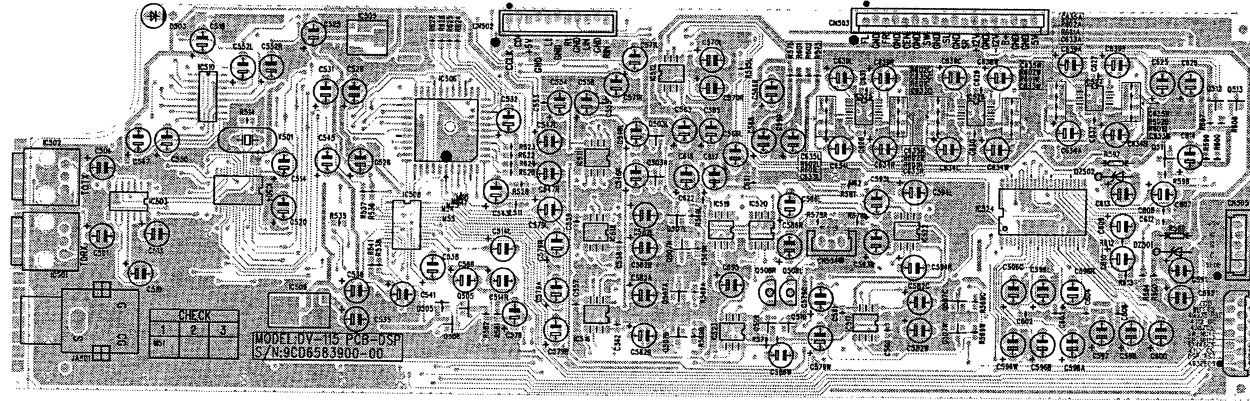


1-2) BOTTOM View

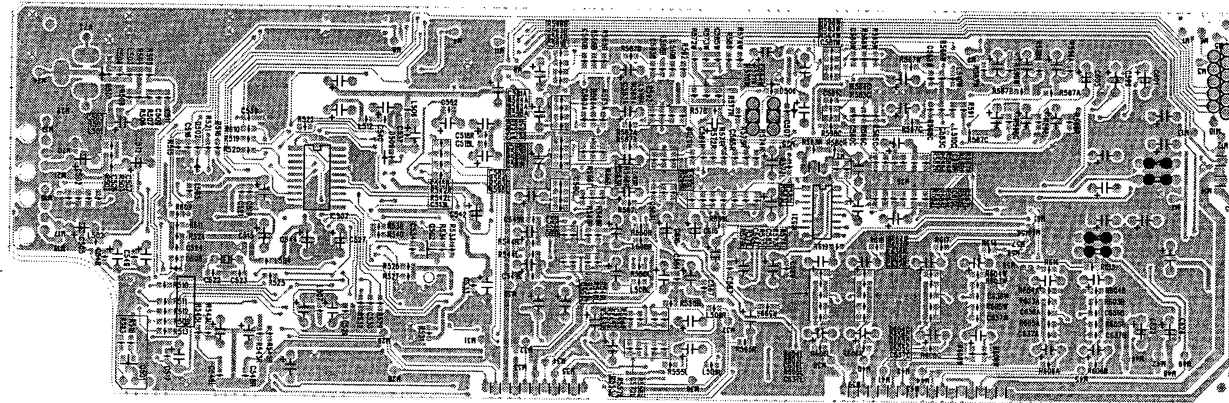


14. Printed Circuit Diagram

- DSP PCB
- 1) TOP View



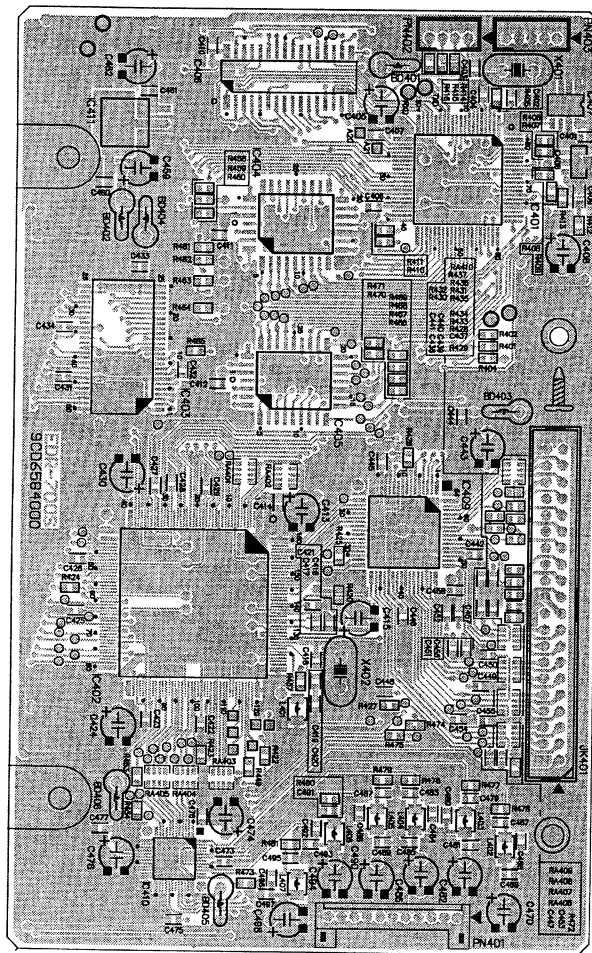
- 2) BOTTOM View



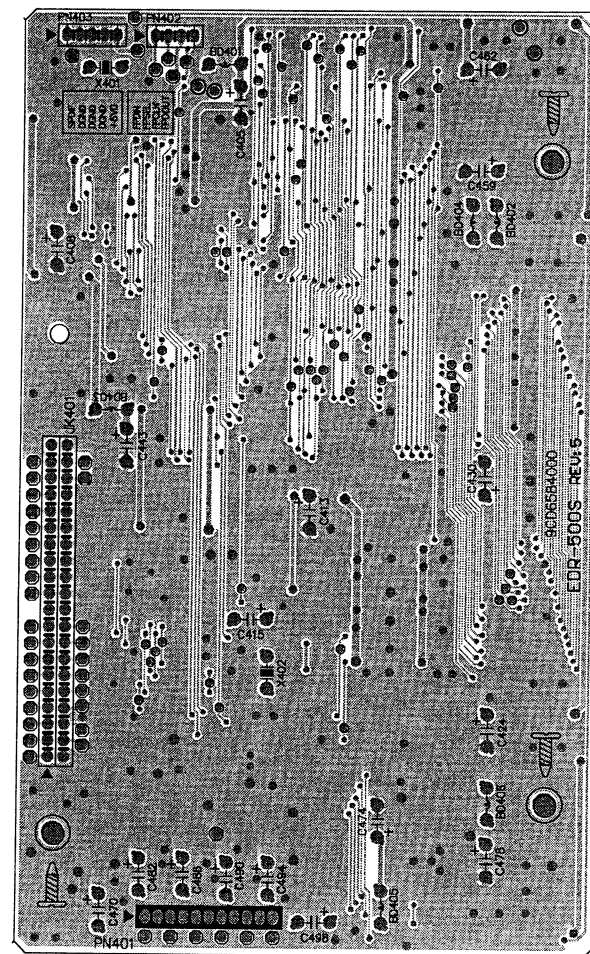
14. Printed Circuit Diagram

- MPEG PCB

1) TOP View



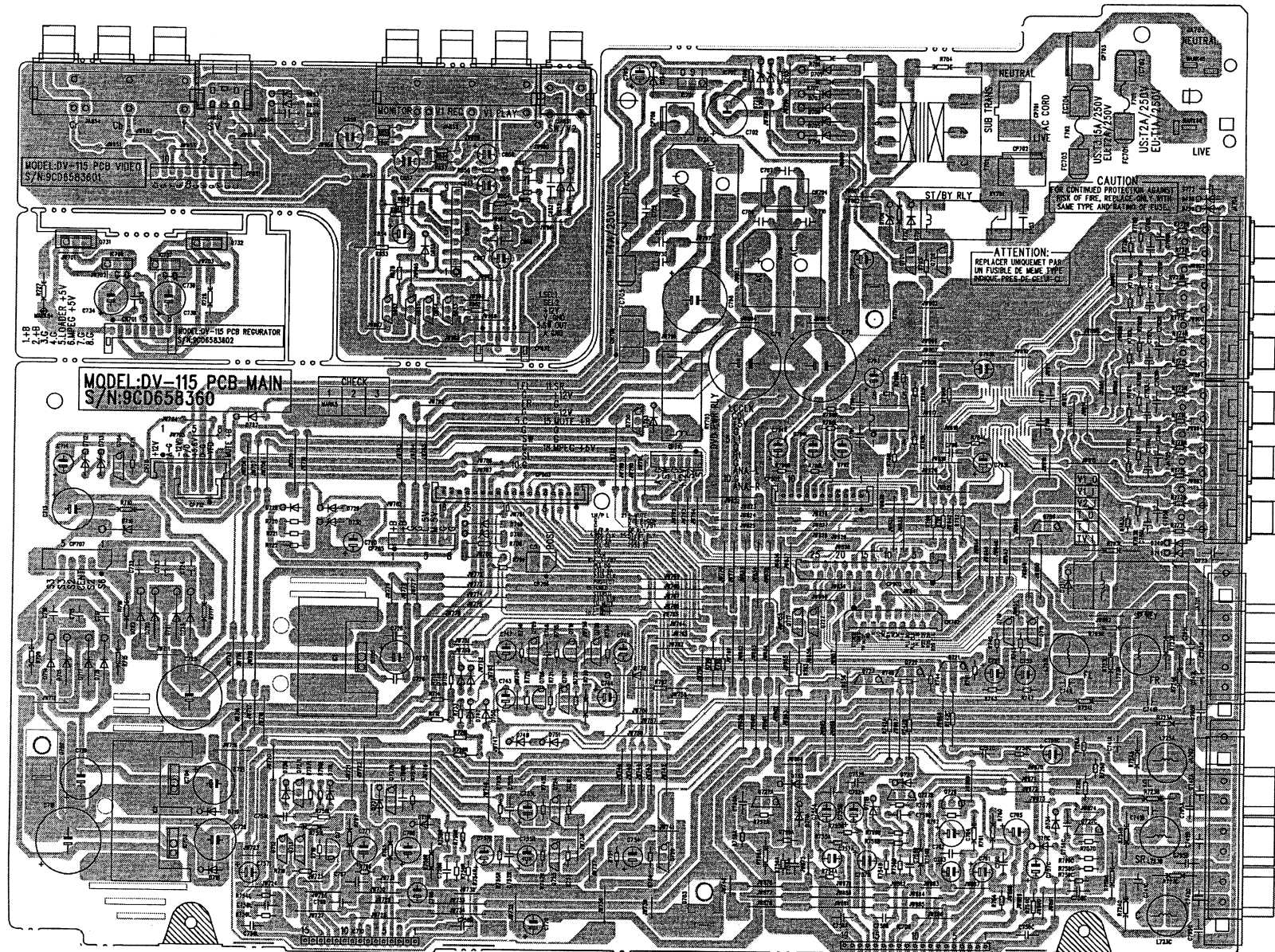
2) BOTTOM View



14. Printed Circuit Diagram

-. MAIN PCB

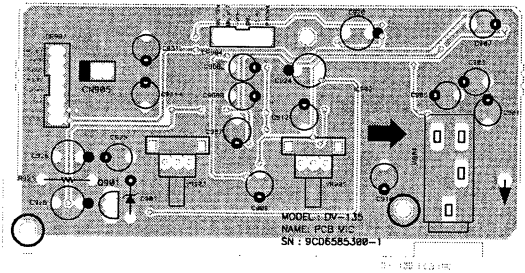
DV-135



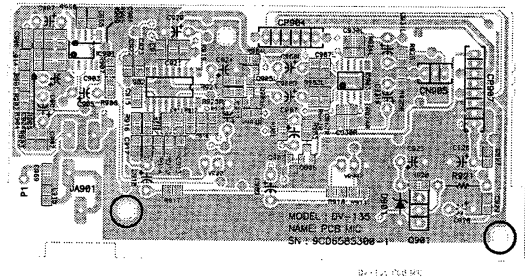
14. Printed Circuit Diagram

-. DV-135 MIC PCB

1) TOP View



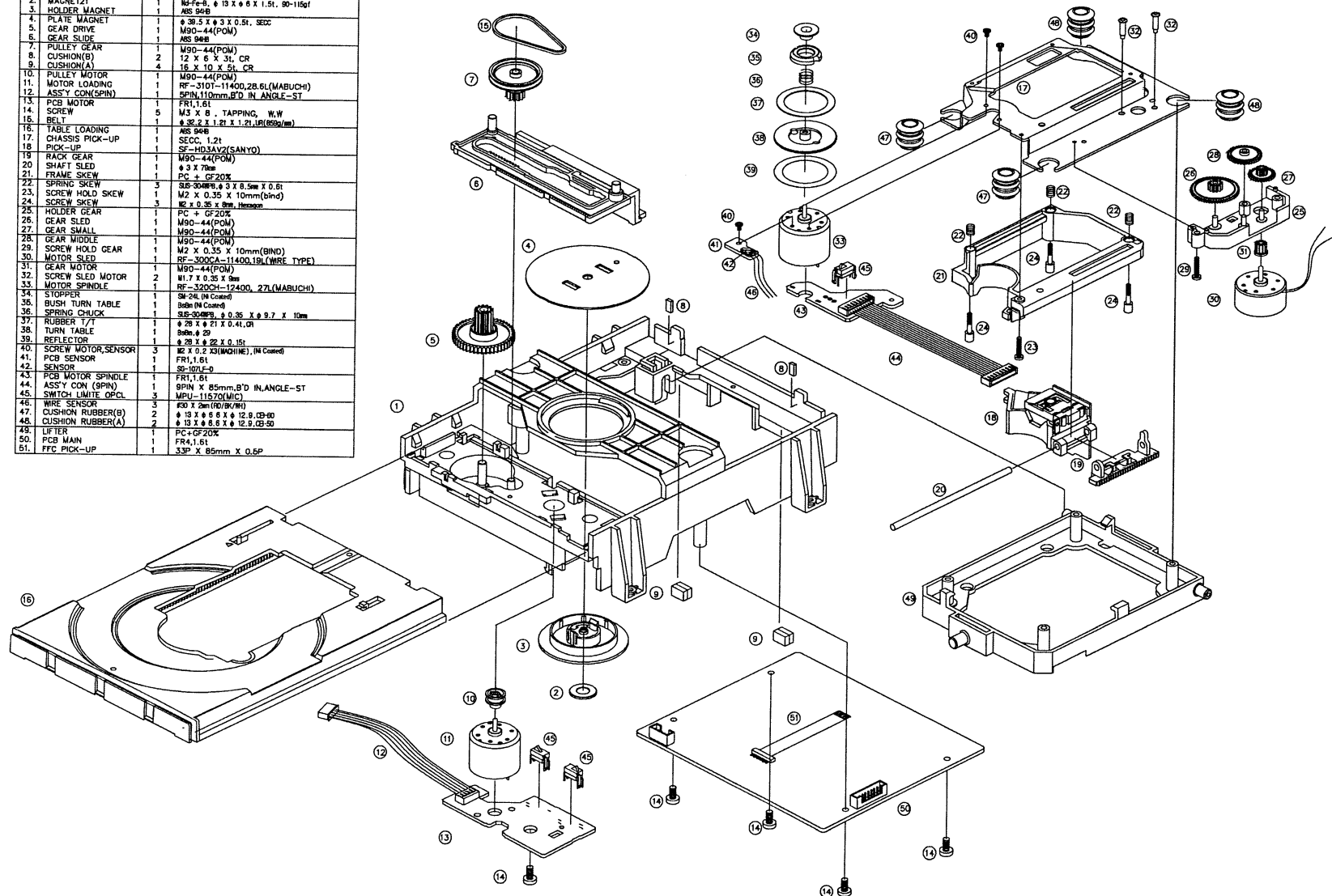
2) BOTTOM View



15. Mechanism

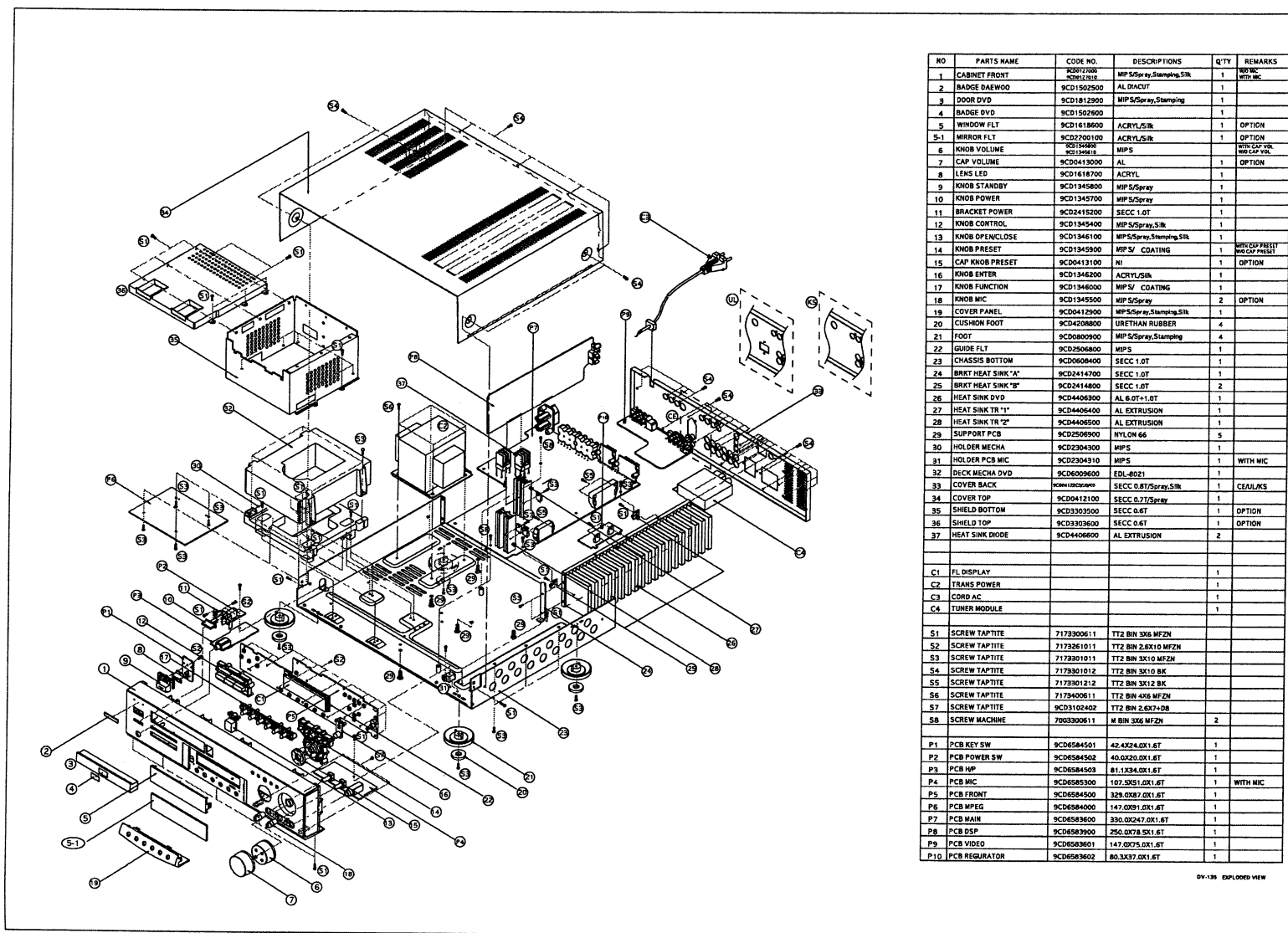
DV-135

NO	PART NAME	QTY	Description
1.	CHASSIS FRAME	1	ABS 94B
2.	MAGNET	1	M4-F-8, $\phi 13 \times \phi 6 \times 1.5t$, 90-115gf
3.	HOLDER MAGNET	1	ABS 94B
4.	PLATE MAGNET	1	$\phi 38.5 \times \phi 3 \times 0.5t$, SECC
5.	GEAR DRIVE	1	M90-44(POM)
6.	GEAR SLIDE	1	ABS 94B
7.	PULLEY GEAR	1	M90-44(POM)
8.	CUSHION(B)	2	12 X 6 X 3t, CR
9.	CUSHION(A)	4	18 X 10 X 5t, CR
10.	PULLEY MOTOR	1	M90-44(POM)
11.	MOTOR LOADING	1	RF-310T-11400, 28.6L(MABUCHI)
12.	ASS'Y CON(SPIN)	1	SPIN 110mm, B'D IN ANGLE-ST
13.	PCB MOTOR	1	FR1, 1.6t
14.	SCREW	5	M3 X 8, TAPPING, W.W
15.	BELT	1	$\phi 38.2 \times 1.2t \times 1.2t$, (PI 650g/m)
16.	TABLE LOADING	1	ABS 94B
17.	CHASSIS PICK-UP	1	SECC, 1.2t
18.	PICK-UP	1	SF-H03AV2(SANYO)
19.	RACK GEAR	1	M90-44(POM)
20.	SHAFT SLED	1	$\phi 3 \times 70mm$
21.	FRAME SKEW	1	PC + GF20%
22.	SPRING SKEW	3	SUS-304W9, $\phi 3 \times 8.5mm \times 0.8t$
23.	SCREW HOLD SKEW	1	M2 X 0.35 X 10mm (Sine)
24.	SCREW SKEW	3	M2 X 0.35 X 8mm Hexagon
25.	HOLDER GEAR	1	PC + GF20%
26.	GEAR SLED	1	M90-44(POM)
27.	GEAR SMALL	1	M90-44(POM)
28.	GEAR MIDDLE	1	M90-44(POM)
29.	SCREW HOLD GEAR	1	M2 X 0.35 X 10mm (BIND)
30.	MOTOR SLED	1	RF-3000A-11400, 19L(WIRE TYPE)
31.	GEAR MOTOR	1	M90-44(POM)
32.	SCREW SLED MOTOR	2	M1.7 X 0.35 X 9mm
33.	MOTOR SPINDLE	1	RF-3200H-17400, 27L(MABUCHI)
34.	STOPPER	1	SM-2H, (N Coated)
35.	BUSH TURN TABLE	1	808x (N Coated)
36.	SPRING CHUCK	1	SUS-304W9, $\phi 0.35 \times \phi 9.7 \times 10mm$
37.	RUBBER T/T	1	$\phi 29 \times \phi 21 \times 0.4t$, D1
38.	TURN TABLE	1	808x, $\phi 29$
39.	REFLECTOR	1	$\phi 29 \times \phi 22 \times 0.15t$
40.	SCREW MOTOR SENSOR	3	M2 X 0.2 (MACHINE), (N Coated)
41.	PCB SENSOR	1	FR1, 1.6t
42.	SENSOR	1	SS-107F-0
43.	PCB MOTOR SPINDLE	1	FR1, 1.6t
44.	ASS'Y CON (SPIN)	1	SPIN X 95mm, B'D IN ANGLE-ST
45.	SWITCH LIMITE OPCL	3	MPU-11570(MIC)
46.	WIRE SENSOR	3	#30 X 2mm (R/R/NH)
47.	CUSHION RUBBER(B)	2	$\phi 13 \times \phi 6.5 \times \phi 12.8$, CD-80
48.	CUSHION RUBBER(A)	2	$\phi 13 \times \phi 6.5 \times \phi 12.8$, CD-50
49.	LIFTER	1	PC+GF20%
50.	PCB MAIN	1	FR4, 1.6t
51.	FFC PICK-UP	1	33P X 85mm X 0.6P



16. Exploded View and Mechanical Parts List

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DV-135 EXPLODED VIEW

16. Exploded View and Mechanical Parts List

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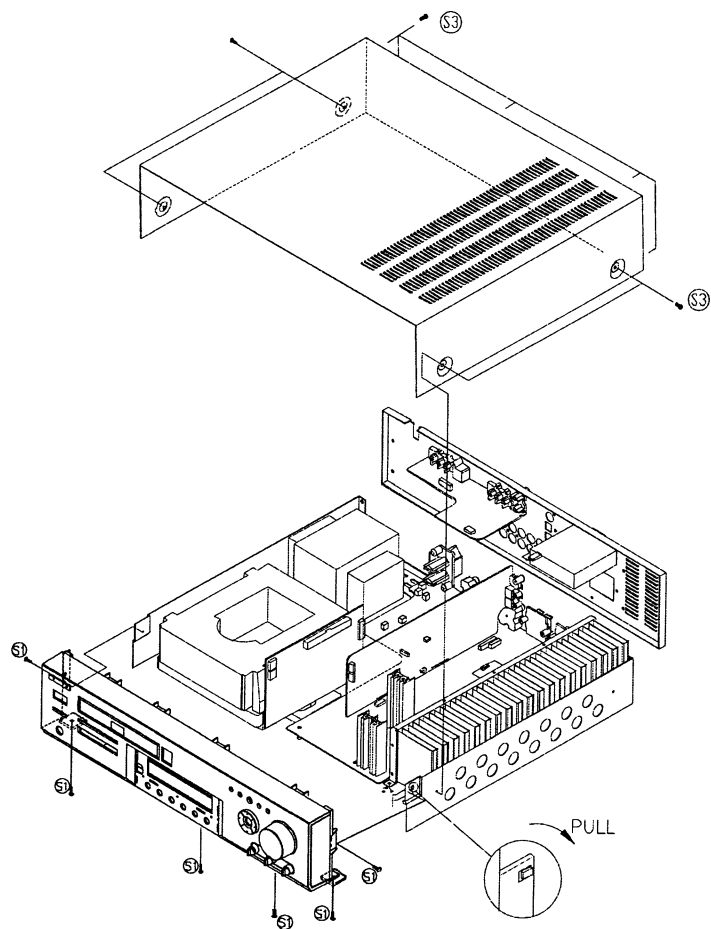
NO	PARTS NAME	CODE NO.	DESCRIPTIONS	Q'TY	REMARKS
1	CABINET FRONT	9CD0126800 9CD0126810	MIPS.SP.SILK	1	WITHOUT MIC WITH MIC
2	BADGE BRAND	9CD1500900	ABS.HOT STAMPING	1	
3	DOOR DVD	9CD1812500	MIPS	1	
4	BADGE DVD	9CD1502200	DIA CUT	1	
5	WINDOW FLT	9CD1617900	ACRYL	1	
6	KNOB VR	9CD1343500	MIPS.SP.	1	
7	LENS STANDBY	9CD1618000	ACRYL	1	
8	PLATE FILTER	9CD0912000	LEXAN T0.15	1	
9	HOLDER LENS	9CD2304400	MIPS	1	
10	KNOB POWER	9CD1343400	MIPS	1	
11	PCB BRKT POWER	9CD6583504	PCB.42X18X1.6T	1	
12	KNOB CONTROL	9CD1342800	MIPS.SP.	1	
13	KNOB OPEN/CLOSE	9CD1343100	MIPS.	1	
14	KNOB DIRECTION	9CD1342900	MIPS.SP.	1	
15	KNOB ENTER	9CD1343000	MIPS.SP.	1	
16	KNOB FUNCTION	9CD1343200	MIPS.SP.	1	
17	KNOB MIC	9CD1343300	MIPS.SP.	2	WITH MIC(OPTION)
18	CUSHION FOOT	9CD4208800	URETHAN RUBBER	4	
19	FOOT	9CD0800900	MIPS.SP.STAMP	4	
20	GUIDE FLT	9CD2506800	MIPS.	1	
21	CHASSIS BOTTOM	9CD0608400	SECC 1.0T	1	
22	HEAT SINK DIODE	9CD4406600	AL EXTRUSION	2	
23	BRKT HEAT SINK "A"	9CD2414700	SECC 1.0T	1	
24	BRKT HEAT SINK "B"	9CD2414800	SECC 1.0T	2	
25	HEAT SINK DVD	9CD4406300	AL 6.0T+1.0T	1	
26	HEAT SINK TR "2"	9CD4406500	AL EXTRUSION	2	
27	HEAT SINK TR "1"	9CD4406400	AL EXTRUSION	1	
28	SUPPORT PCB	9CD2506900	NYLON 66	4	
29	HOLDER MECHA	9CD2304300	MIPS	1	
30	DECK MECHA DVD	9CD6009600	EDL-8021	1	
31	COVER BACK	9CD04122C0 9CD04122U0	SECC 0.8T.SPRAY.SILK	1	"CE" VERSION "UL" VERSION
32	COVER TOP	9CD0412100	SECC 0.7T.SPRAY.	1	
33	SHIELD BOTTOM	9CD3303500	SECC T0.6	1	OPTION
34	SHIELD TOP	9CD3303600	SECC T0.6	1	OPTION

NO	PARTS NAME	CODE NO.	DESCRIPTIONS	Q'TY	REMARKS
C1	FL DISPLAY	DHNA11MM37	NHA-11MM37	1	
C2	TRANS POWER	5TP8086851 5TP1086852	EI=85.8X63 230V 50Hz EI=85.8X63 127V/60Hz	1	"CE" VERSION "UL" VERSION
C3	CORD AC	9736908600 9736908700	KE-25 H03VVH2-F 1820MM KE-01P NSPT-2	1	"CE" VERSION "UL" VERSION
C4	TUNER MODULE	9737650201 9737650101	KST-MB114MA1-0(RDS) KST-MB011MA0-0	1	"CE" VERSION "UL" VERSION
S1	SCREW TAPTITE	7173300611	TT2 BIN 3X6 MFZN	19	
S2	SCREW TAPTITE	7173261011	TT2 BIN 2.6X10 MFZN	14	
S3	SCREW TAPTITE	7173301011	TT2 BIN 3X10 MFZN	12	
S4	SCREW TAPTITE	7173301012	TT2 BIN 3X10 BK	28	
S5	SCREW TAPTITE	7173301412	TT2 BIN 3X14 BK	4	
S6	SCREW TAPTITE	7173400611	TT2 BIN 4X6 MFZN	4	
S7	WASHER SCREW	9CD3102401	TT2 BIN 3.0X10+D14	1	
S8	SCREW MACHINE	7003300611	M BIN 3X6 MFZN	4	
S9	SCREW TAPTITE	7178260811	TT2 WAS 2.6X8 MFZN	3	
S10	SCREW GROUND	9CD3104100	TT2 BIN 3X10 BK & GROUND	9	
P1	PCB KEY SW	9CD6583503	40.0 X 18.0 X 1.6T	1	
P2	PCB POWER SW	9CD6583505	41.0 X 19.0 X 1.6T	1	
P3	PCB H/P	9CD6583502	71.0 X 19.0 X 1.6T	1	
P4	PCB MIC	9CD6583501	118.0 X 46.0 X 1.6T	1	
P5	PCD FRONT	9CD6583500	329.0 X 87.0 X 1.6T	1	
P6	PCB MPEG	9CD6584000	147.0 X 91.0 X 1.6T	1	
P7	PCB MAIN	9CD6583600	330.0 X 247.0 X 1.6T	1	
P8	PCB DSP	9CD6583900	250.0 X 78.5 X 1.6T	1	
P9	PCB VIDEO	9CD6583601	147.0 X 75.0 X 1.6T	1	
P10	PCB REGULATOR	9CD6583602	80.3 X 37.0 X 1.6T	1	

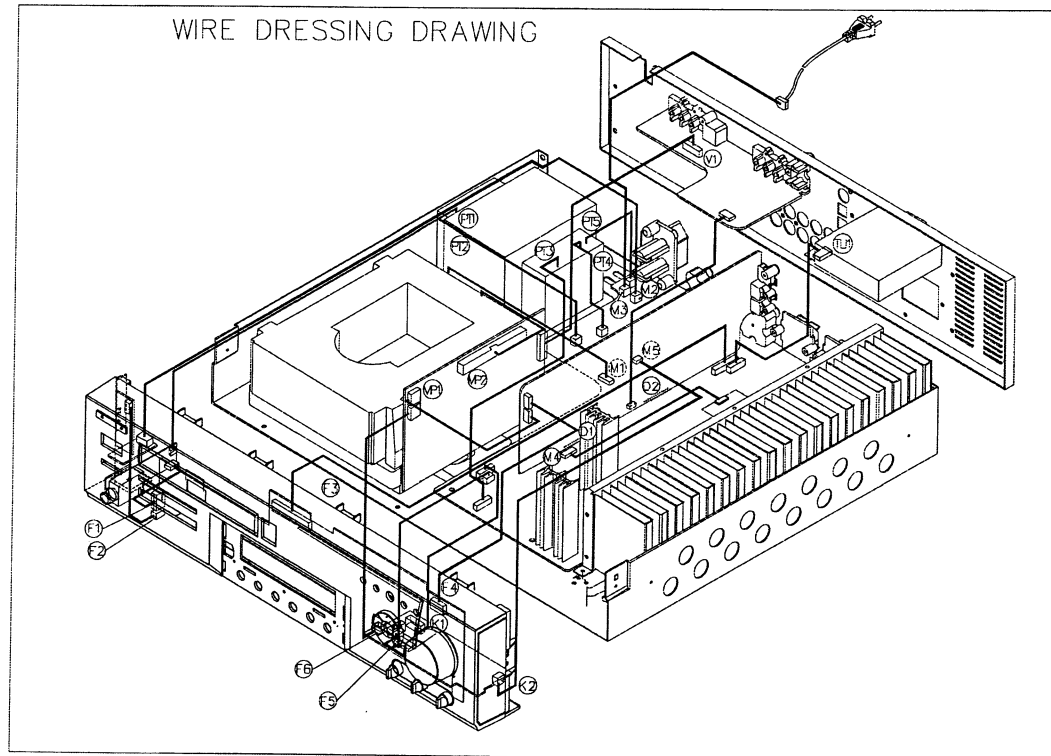
16. Exploded View and Mechanical Parts List

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MAIN DISASS'Y DRAWING



WIRE DRESSING DRAWING



1. Electrical Parts List

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BLOCK	MARK	FROM	TO	CONNECTION	S/N	NAME	DESCRIPTION	REMARK
DSP	D1	CN503	CP503	MAIN	9728809100	PIN CONN	2.0MM 35237-1801 18P	
DSP	D2	CN502	CP502	MAIN	9728809000	PIN CONN	2.0MM 35237-1101 11P	
FRONT	F1	CN903	CP992	H/P	9728809700	CONN AS	#26 P2.0 7P 140MM UL 1007	
FRONT	F2	CN906	CP906	KEY SW	9728811500	CONN AS	#26 P2.0 3P 100MM UL 1007	
FRONT	F3	CP903	CP903	MAIN	9CD6264200	FFC	FFC 1.25X27X360MM K	
FRONT	F4	CP901	CN501	DSP	9CD6264000	FFC	FFC 1.25X11X230MM R	
FRONT	F5	CN904	CP904	MIC	9728811300	CONN AS	#26 P2.0 6P 170MM UL 1007	W/KARAOKE
	F5	CN904	CP712	MAIN	9728811900	CONN AS	#26 P2.0 4P 170MM UL 1007	W/O KARAOKE
FRONT	F6	CN901	PN402	MPEG	9728811200	CONN AS	#26 P2.0 4P 160MM UL 1007	
MAIN	M1	CN706	LOADER	LOADER	9728810400	CONN AS	#18 P3.96 3P 210MM UL 1007	
MAIN	M2	CP702	CP993	POWER SW	9728809800	CONN AS	#22 P7.92 2P 460MM UL 1617	CN993
BACK	M3		CP701	AC CORD	9728808100	WAFER	GP390-03P-TS-M(W/O CENTER)	
MAIN	M4	CP705	CN701	REGURATOR	9728810500	CONN AS	#24 P2.0 8P 140MM UL 1007	
MAIN	M5	CP710	CP852	VIDEO	9728810200	CONN AS	#26 P2.0 6P 120MM UL 1007	
MIC	K1	CP907	CP711	MAIN	9728809500	CONN AS	#26 P2.0 8P 200MM UL 1007	W/KARAOKE
MIC	K2	CN905	CN504	DSP	9728811400	CONN AS	P2.0 3P 270MM SHIELD BD	W/KARAOKE
MPEG	MP1	PN403	CN505	DSP	9728810100	CONN AS	#24 P2.0 5P 120MM UL 1007	
MPEG	MP2	PN404	LOADER	LOADER	9728811100	ATAPI	ATAPI CABLE 40P 250MM	
TRANS	PT1		CP902	H/P	9728808800	WAFER	2.0MM PH-3AW 3P	
TRANS	PT3		CP707	MAIN	9728808000	WAFER	5267-06A WAFER	
TRANS	PT4		CP704	MAIN	9728808500	WAFER	VH-3A WAFER	
TRANS	PT5		CP703	MAIN	9728808300	WAFER	VH-3A (W/O CENTER,BLUE)	
MAIN	PT2		CP708	MAIN	9728808400	WAFER	VH-2A WAFER	
TUNER	TU1	CN913	CN702	MAIN	9728809200	FFC	FFC 1.25X17X110MM K	WITH RDS
TUNER	TU1	CN914	CN702	MAIN	9728811600	FFC	FFC 1.25X15X110MM K	W/O RDS
VIDEO	V1	CP851	PN401	MPEG	9728810300	CONN AS	#26 P2.0 11P 220MM UL 1007	

17. Electrical Parts List

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NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS	NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS
1	CORD AC	AC901	9736908600	KE-25 H03VVH2-F 1820MM		50	C ELECTRO	C552L/R	CEXF1H339E	50V RM 3.3MF (5X11) TP	
2	CONN FFC	CN913	9728809200	FFC 1.25X17X110MM K		51	C CHIP CERA	C553	HCQK681JBA	50V CH 680PF J 1608	
3	TUNER MODULE	TU001	9737650201	KST-MB114MA1-0(RDS)		52	C ELECTRO	C554	CEXF1E101E	25V RM 100MF (6.3X11) TP	
1	PCB DSP AS	13000	9CDC059000	DV-115		53	C CHIP CERA	C555	HCQK681JBA	50V CH 680PF J 1608	
2	PCB DSP	B001	9CD6583900	170X260		54	C ELECTRO	C556	CEXF1E101E	25V RM 100MF (6.3X11) TP	
3	C ELECTRO	C501	CEXF1E470E	25V RM 47MF (5X11)		55	C CHIP CERA	C557-562	HCQK681JBA	50V CH 680PF J 1608	
4	C CHIP CERA	C502	HCBK104KBA	50V X7R 0.1MF K 1608		56	C ELECTRO	C563	CEXF1H100E	50V RM 10MF (5X11) TP	
5	C CHIP CERA	C503	HCQK220JBA	50V CH 22PF J 1608		57	C CHIP CERA	C564	HCBK104KBA	50V X7R 0.1MF K 1608	
6	C ELECTRO	C504	CEXF1E470E	25V RM 47MF (5X11)		58	C ELECTRO	C565-566L/R	CEXF1H100E	50V RM 10MF (5X11) TP	
7	C CHIP CERA	C505	HCBK104KBA	50V X7R 0.1MF K 1608		59	C ELECTRO	C566	CEXF1H109E	50V RM 1MF (5X11) TP	
8	C CHIP CERA	C506	HCQK220JBA	50V CH 22PF J 1608		60	C CHIP CERA	C567	HCBK104KBA	50V X7R 0.1MF K 1608	
9	C CHIP CERA	C507	HCBK104KBA	50V X7R 0.1MF K 1608		61	C ELECTRO	C570L/R-571L/R	CEXF1H100E	50V RM 10MF (5X11) TP	
10	C CHIP CERA	C508-509	HCQK220JBA	50V CH 22PF J 1608		62	C CHIP CERA	C572L/R	HCBK102KBA	50V X7R 1000PF K 1608	
11	C ELECTRO	C510	CEXF1H108E	50V RM 0.1MF (5X11) TP		63	C ELECTRO	C578	CEXF1H100E	50V RM 10MF (5X11) TP	
12	C CHIP CERA	C511-512	HCBK104KBA	50V X7R 0.1MF K 1608		64	C ELECTRO	C579A/B/C/L/R/W	CEXF1H100E	50V RM 10MF (5X11) TP	
13	C ELECTRO	C513-514	CEXF1E470E	25V RM 47MF (5X11)		65	C CHIP CERA	C580A/B/C/L/R/W	HCQK681JBA	50V CH 680PF J 1608	
14	C CHIP CERA	C513L/R	HCQK222JBA	50V CH 2200PF J 1608		66	C CHIP CERA	C581A/B/C/L/R/W	HCQK681JBA	50V CH 680PF J 1608	
15	C ELECTRO	C514L/R	CEXF1E101E	25V RM 100MF (6.3X11) TP		67	C ELECTRO	C582A/B/C/L/R/W	CEXF1H100E	50V RM 10MF (5X11) TP	
16	C CHIP CERA	C515-517	HCBK104KBA	50V X7R 0.1MF K 1608		68	C CHIP CERA	C583A/B/C/L/R/W	HCBK332KBA	50V X7R 3300PF K 1608	
17	C ELECTRO	C518	CEXF1E470E	25V RM 47MF (5X11)		69	C CHIP CERA	C584L/R/W	HCQK101JBA	50V CH 100PF J 1608	
18	C CHIP CERA	C518L/R	HCBK104KBA	50V X7R 0.1MF K 1608		70	C CHIP CERA	C585L/R	HCQK330JBA	50V CH 33PF J 1608	
19	C CHIP CERA	C519	HCBK104KBA	50V X7R 0.1MF K 1608		71	C CHIP CERA	C585W	HCQK470JBA	50V CH 47PF J 1608	
20	C ELECTRO	C520	CEXF1E470E	25V RM 47MF (5X11)		72	C ELECTRO	C586L/R/W	CEXF1H100E	50V RM 10MF (5X11) TP	
21	C CHIP CERA	C521	HCBK104KBA	50V X7R 0.1MF K 1608		73	C CHIP CERA	C587	HCQK681JBA	50V CH 680PF J 1608	
22	C CHIP CERA	C522-523	HCQK270JBA	50V CH 27PF J 1608		74	C ELECTRO	C588	CEXF1H100E	50V RM 10MF (5X11) TP	
23	C ELECTRO	C525	CEXF1H100E	50V RM 10MF (5X11) TP		75	C CHIP CERA	C589	HCQK681JBA	50V CH 680PF J 1608	
24	C ELECTRO	C526	CEXF1E470E	25V RM 47MF (5X11)		76	C ELECTRO	C590	CEXF1H100E	50V RM 10MF (5X11) TP	
25	C CHIP CERA	C527	HCBK104KBA	50V X7R 0.1MF K 1608		77	C ELECTRO	C591	CEXF1V470E	35V RM 47MF (5X11) TP	
26	C ELECTRO	C528	CEXF1E470E	25V RM 47MF (5X11)		78	C ELECTRO	C592	CEXF1H109E	50V RM 1MF (5X11) TP	
27	C CHIP CERA	C529	HCBK104KBA	50V X7R 0.1MF K 1608		79	C ELECTRO	C593L/R-594L/R	CEXF1H479E	50V RM 4.7MF (5X11) TP	
28	C CHIP CERA	C530	HCFK224ZCA	50V Y5V 0.22MF Z 2012		80	C ELECTRO	C595	CEXF1H109E	50V RM 1MF (5X11) TP	
29	C ELECTRO	C531	CEXF1H229E	50V RM 2.2MF (5X11) TP		81	C ELECTRO	C596A/B/C/L/R/W	CEXF1H479E	50V RM 4.7MF (5X11) TP	
30	C ELECTRO	C532	CEXF1E470E	25V RM 47MF (5X11)		82	C ELECTRO	C597-598	CEXF1H479E	50V RM 4.7MF (5X11) TP	
31	C CHIP CERA	C533	HCBK104KBA	50V X7R 0.1MF K 1608		83	C CHIP CERA	C599	HCBK822KBA	50V X7R 8200PF K 1608	
32	C CHIP CERA	C534	HCBK102KBA	50V X7R 1000PF K 1608		84	C ELECTRO	C600	CEXF1H338E	5V RM 0.33MF (5X11) TP	
33	C ELECTRO	C535	CEXF1H109E	50V RM 1MF (5X11) TP		85	C CHIP CERA	C601	HCBK153KBA	50V X7R 0.015MF K 1608	
34	C ELECTRO	C536	CEXF1H100E	50V RM 10MF (5X11) TP		86	C CHIP CERA	C602-606	HCQK101JBA	50V CH 100PF J 1608	
35	C CHIP CERA	C537	HCBK104KBA	50V X7R 0.1MF K 1608		87	C ELECTRO	C607	CEXF1H338E	5V RM 0.33MF (5X11) TP	
36	C ELECTRO	C538	CEXF1H100E	50V RM 10MF (5X11) TP		88	C CHIP CERA	C608	HCBK153KBA	50V X7R 0.015MF K 1608	
37	C CHIP CERA	C539-540	HCBK104KBA	50V X7R 0.1MF K 1608		89	C ELECTRO	C609-610	CEXF1H339E	50V RM 3.3MF (5X11) TP	
38	C ELECTRO	C541	CEXF1H229V	50V RSS 2.2MF (5X11) TP		90	C CHIP CERA	C612	HCBK822KBA	50V X7R 8200PF K 1608	
39	C CHIP CERA	C542	HCBK104KBA	50V X7R 0.1MF K 1608		91	C ELECTRO	C613	CEXF1H100E	50V RM 10MF (5X11) TP	
40	C ELECTRO	C543	CEXF1H100E	50V RM 10MF (5X11) TP		92	C ELECTRO	C614	CEXF1H108E	50V RM 0.1MF (5X11) TP	
41	C CHIP CERA	C544	HCBK104KBA	50V X7R 0.1MF K 1608		93	C CHIP CERA	C615-616	HCQK681JBA	50V CH 680PF J 1608	
42	C ELECTRO	C545	CEXF1E470E	25V RM 47MF (5X11)		94	C ELECTRO	C617-618	CEXF1E101E	25V RM 100MF (6.3X11) TP	
43	C ELECTRO	C546L/R-547L/R	CEXF1H100E	50V RM 10MF (5X11) TP		95	C CHIP CERA	C619L/R	HCQK101JBA	50V CH 100PF J 1608	
44	C ELECTRO	C547	CEXF1H109E	50V RM 1MF (5X11) TP		96	C CHIP CERA	C621-624	HCQK681JBA	50V CH 680PF J 1608	
45	C CHIP CERA	C548-549	HCBK104KBA	50V X7R 0.1MF K 1608		97	C ELECTRO	C625-626	CEXF1E101E	25V RM 100MF (6.3X11) TP	
46	C CHIP CERA	C548L/R	HCQK101JBA	50V CH 100PF J 1608		98	C CHIP CERA	C627-632	HCQK681JBA	50V CH 680PF J 1608	
47	C CHIP CERA	C549L/R-550L/R	HCQK681JBA	50V CH 680PF J 1608		99	C CHIP CERA	C633A/B/C/L/R/W	HCQK101JBA	50V CH 100PF J 1608	
48	C ELECTRO	C550	CEXF1H109E	50V RM 1MF (5X11) TP		100	C ELECTRO	C634A/B/L/R	CEXF1H100E	50V RM 10MF (5X11) TP	
49	C CHIP CERA	C552	HCQK101JBA	50V CH 100PF J 1608		101	C ELECTRO	C634C/W	CEXF1H479E	50V RM 4.7MF (5X11) TP	

17. Electrical Parts List

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NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS	NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS
102	C CHIP CERA	C635A/B/C/L/R/W	HCQK681JBA	50V CH 680PF J 1608		154	R CHIP	R504	HRFT750JBA	1/10 75 OHM J 1608	
103	C CHIP CERA	C636A/B/C/L/R/W	HCQK820JBA	50V CH 82PF J 1608		155	R CHIP	R505	HRFT101JBA	1/10 100 OHM J 1608	
104	C ELECTRO	C638W	CEXF1H479E	50V RM 4.7MF (5X11) TP		156	R CHIP	R506	HRFT222JBA	1/10 2.2K OHM J 1608	
105	C ELECTRO	C639A/B/C/L/R	CEXF1H479E	50V RM 4.7MF (5X11) TP		157	R CHIP	R507	HRFT103JBA	1/10 10K OHM J 1608	
106	CONN WAFER	CN501	9CD6264300	52045-1145		158	R CHIP	R508	HRFT104JBA	1/10 100K OHM J 1608	
107	CONN WAFER	CN502	9728809000	2.0MM 35237-1101 11P		159	R CHIP	R509-513	HRFT220JBA	1/10W 22 OHM J 1608	
108	CONN WAFER	CN503	9728809100	2.0MM 35237-1801 18P		160	R CHIP	R514	HRFT105JBA	1/10 1M OHM J 1608	
109	CONN WAFER	CN504	9728811700	2.0MM PH-3A 3P		161	R CHIP	R515	HRFT104JBA	1/10 100K OHM J 1608	
110	CONN WAFER	CN505	9728810900	2.0MM PH-5A 5P		162	R CHIP	R516	HRFT220JBA	1/10W 22 OHM J 1608	
111	DIODE SW CHIP	D501-502	DZDS160---	KDS160		163	R CHIP	R517	HRFT103JBA	1/10 10K OHM J 1608	
112	DIODE SW CHIP	D505-507	DZDS160---	KDS160		164	R CHIP	R518	HRFT102JBA	1/10 1K OHM J 1608	
113	DIODE SW CHIP	D509	DZDS160---	KDS160		165	R CHIP	R519-522	HRFT220JBA	1/10W 22 OHM J 1608	
114	DIODE ZENER	DZ501-502	DZT7Z7R5B--	MTZ 7.5B		166	R CHIP	R524	HRFT332JBA	1/10 3.3K OHM J 1608	
115	IC	IC501	1T0RX178B-	T0RX178B (OPTICAL RX)		167	R CHIP	R525	HRFT470JBA	1/10 47 OHM J 1608	
116	IC	IC502	1T0TX178A-	T0TX178A (OPTICAL TX)		168	R CHIP	R526-528	HRFT472JBA	1/10 4.7K OHM J 1608	
117	IC	IC503	174HCU04--	74HCU04 (INVERTER)		169	R CHIP	R529	HRFT103JBA	1/10 10K OHM J 1608	
118	IC	IC504	1AK4112A--	AK4112A (DIR)		170	R CHIP	R531	HRFT472JBA	1/10 4.7K OHM J 1608	
119	IC REGULATOR	IC505	1AME1117BGC	AME1117B (SOT-223)		171	R CHIP	R532	HRFT103JBA	1/10 10K OHM J 1608	
120	IC	IC506	1CS49326--	CS49326 (DD DECODER)		172	R CHIP	R533	HRFT122JBA	1/10 1.2K OHM J 1608	
121	IC	IC507	174HC244--	74HC244 (BUS DRIVER)		173	R CHIP	R534	HRFT332JBA	1/10 3.3K OHM J 1608	
122	IC	IC508	1CS4228A--	CS4228A (CODEC)		174	R CHIP	R535	HRFT103JBA	1/10 10K OHM J 1608	
123	IC REGULATOR	IC509	1AME1117CC	AME1117CCCT (TO-252)		175	R CHIP	R536-537	HRFT220JBA	1/10W 22 OHM J 1608	
124	IC	IC510	1CS4341---	CS4341 (DAC)		176	R CHIP	R538	HRFT103JBA	1/10 10K OHM J 1608	
125	IC CHIP	IC511-512	1NJM4558M-	NJM4558M		177	R CHIP	R539	HRFT470JBA	1/10 47 OHM J 1608	
126	IC	IC516-518	1NJM2068--	NJM2068 (OP AMP)		178	R CHIP	R540	HRFT103JBA	1/10 10K OHM J 1608	
127	IC CHIP	IC519-520	1NJM4558M-	NJM4558M		179	R CHIP	R541	HRFT223JBA	1/10 22K OHM J 1608	
128	IC	IC521	1BU4052BCF	BU4052		180	R CHIP	R542L/R	HRFT151JBA	1/10 150 OHM J 1608	
129	IC CHIP	IC523	1NJM4558M-	NJM4558M		181	R CHIP	R543L/R	HRFT103JBA	1/10 10K OHM J 1608	
130	IC	IC524	1M62446FP-	M62446FP		182	R CHIP	R544L/R	HRFT472JBA	1/10 4.7K OHM J 1608	
131	IC CHIP	IC525-527	1NJM4558M-	NJM4558M		183	R CHIP	R545L/R	HRFT561JBA	1/10 560 OHM J 1608	
132	JACK RCA	JA501	9736324100	JK010055HN		184	R CHIP	R546L/R	HRFT472JBA	1/10 4.7K OHM J 1608	
133	COIL CHIP	L501-502	HLC479J03A	4.7UH CHIP 2012		185	R CHIP	R548L/R	HRFT102JBA	1/10 1K OHM J 1608	
134	COIL CHIP	L503	HLC229J02A	2.2UH CHIP 1608		186	R CHIP	R549L/R	HRFT104JBA	1/10 100K OHM J 1608	
135	COIL CHIP	L504	HLC104J01A	BEAD 120 OHM 100MHZ 2012		187	R CHIP	R550L/R	HRFT102JBA	1/10 1K OHM J 1608	
136	COIL CHIP	L505	HLC479J03A	4.7UH CHIP 2012		188	R CHIP	R555L/R	HRFT473JBA	1/10 47K OHM J 1608	
137	COIL CHIP	L506-507	HLC104J01A	BEAD 120 OHM 100MHZ 2012		189	R CHIP	R556L/R	HRFT472JBA	1/10 4.7K OHM J 1608	
138	COIL CHIP	L508L/R	HLC104J01A	BEAD 120 OHM 100MHZ 2012		190	R CHIP	R557L/R	HRFT471JBA	1/10 470 OHM J 1608	
139	R CHIP	L509L/R	HRFT000-BA	1/10 0 OHM 1608		191	R CHIP	R561	HRFT474JBA	1/10 470K OHM J 1608	
140	COIL CHIP	L510A/B/C/L/R/W	HLC104J01A	BEAD 120 OHM 100MHZ 2012		192	R CHIP	R562	HRFT472JBA	1/10 4.7K OHM J 1608	
141	COIL CHIP	L511-512	HLC104J01A	BEAD 120 OHM 100MHZ 2012		193	R CHIP	R563A/B/C/L/R/W	HRFT472JBA	1/10 4.7K OHM J 1608	
142	TR CHIP	Q502	TZRA102S--	KRA102S (10X10)PNP		194	R CHIP	R564A/B/C/L/R/W	HRFT472JBA	1/10 4.7K OHM J 1608	
143	TR CHIP	Q503L/R	TZRC231S--	KRC231S		195	R CHIP	R565A/B/C/L/R/W	HRFT472JBA	1/10 4.7K OHM J 1608	
144	TR CHIP	Q505	TZRA102S--	KRA102S (10X10)PNP		196	R CHIP	R566A/B/C/L/R/W	HRFT472JBA	1/10 4.7K OHM J 1608	
145	TR CHIP	Q506	TZRC102S--	KRC102S		197	R CHIP	R567A/B/C/L/R/W	HRFT102JBA	1/10 1K OHM J 1608	
146	TR CHIP	Q507A/B/C/L/R/W	TZRC231S--	KRC231S		198	R CHIP	R568A/B/C/L/R/W	HRFT104JBA	1/10 100K OHM J 1608	
147	TR FET	Q508L/R	TZSK117---	2SK117		199	R CHIP	R569A/B/C/L/R/W	HRFT102JBA	1/10 1K OHM J 1608	
148	TR CHIP	Q509	TZRA102S--	KRA102S (10X10)PNP		200	R CHIP	R570L/R/W	HRFT392JBA	1/10 3.9K OHM J 1608	
149	TR CHIP	Q510	TZRC102S--	KRC102S		201	R CHIP	R571L/R	HRFT472JBA	1/10 4.7K OHM J 1608	
150	TR CHIP	Q511	TZRA102S--	KRA102S (10X10)PNP		202	R CHIP	R571W	HRFT682JBA	1/10 6.8K OHM J 1608	
151	TR CHIP	Q512-513	TZRC231S--	KRC231S		203	R CHIP	R572L/R-573L/R	HRFT153JBA	1/10 15K OHM J 1608	
152	R CHIP	R501	HRFT472JBA	1/10 4.7K OHM J 1608		204	R CHIP	R572W	HRFT562JBA	1/10 5.6K OHM J 1608	
153	R CHIP	R503	HRFT221JBA	1/10 220 OHM J 1608		205	R CHIP	R573W	HRFT822JBA	1/10 8.2K OHM J 1608	

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NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS	NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS
206	R CHIP	R574L/RW	HRFT101JBA	1/10 100 OHM J 1608		9	C CHIP CERA	C949	HCQK101JBA	50V CH 100PF J 1608	
207	R CHIP	R575-576	HRFT332JBA	1/10 3.3K OHM J 1608		10	C CHIP CERA	C950	HCBK103KBA	50V X7R 0.01MF K 1608	
208	R CHIP	R577L/R	HRFT622JBA	1/10 6.2K OHM J 1608		11	C ELECTRO	C951	CEXP1H479V	50V REM 4.7MF 4*5	
209	R CHIP	R578	HRFT103JBA	1/10 10K OHM J 1608		12	C DOUBLE LAYER	C952	CDXC0H479A	0.047F/5.5V 70UA 5RE	
210	R CHIP	R578L/R	HRFT104JBA	1/10 100K OHM J 1608		13	C ELECTRO	C953	CEXP1C470V	16V REM 47MF	
211	R CHIP	R579	HRFT222JBA	1/10 2.2K OHM J 1608		14	C CHIP CERA	C954	HCBK103KBA	50V X7R 0.01MF K 1608	
212	R CHIP	R580L/R	HRFT472JBA	1/10 4.7K OHM J 1608		15	C CHIP CERA	C955	HCBK104KBA	50V X7R 0.1MF K 1608	
213	R CHIP	R581	HRFT473JBA	1/10 47K OHM J 1608		16	C CHIP CERA	C957-959	HCQK101JBA	50V CH 100PF J 1608	
214	R CHIP	R582L/R	HRFT104JBA	1/10 100K OHM J 1608		17	C CHIP CERA	C960	HCBK473KBA	50V X7R 0.047MF K 1608	
215	R CHIP	R583L/R	HRFT000-BA	1/10 0 OHM 1608		18	C ELECTRO	C961	CEXP1H109V	50V REM 1MF 4*5	
216	R CHIP	R584L/R-585L/R	HRFT472JBA	1/10 4.7K OHM J 1608		19	C CHIP CERA	C962	HCBK104KBA	50V X7R 0.1MF K 1608	
217	R CHIP	R586L/R	HRFT104JBA	1/10 100K OHM J 1608		20	C ELECTRO	C963	CEXP1H109V	50V REM 1MF 4*5	
218	R CHIP	R587A/B/C/L/R/W	HRFT000-BA	1/10 0 OHM 1608		21	C CHIP CERA	C964	HCBK473KBA	50V X7R 0.047MF K 1608	
219	R CHIP	R588	HRFT104JBA	1/10 100K OHM J 1608		22	CONN AS	CN901	9728811200	#26 P2.0 4P 160MM UL 1007	
220	R METAL FILM	R589	RN-4Z221J-	1/4W 220 OHM J		23	CONN AS	CN903	9728809700	#26 P2.0 7P 140MM UL 1007	
221	R CHIP	R590	HRFT751JBA	1/10 750 OHM J 1608		24	CONN AS	CN904	9728811300	#26 P2.0 6P 170MM UL 1007	
222	R CHIP	R591-593	HRFT101JBA	1/10 100 OHM J 1608		25	CONN AS	CN906	9728811500	#26 P2.0 3P 100MM UL 1007	
223	R CHIP	R594	HRFT152JBA	1/10 1.5K OHM J 1608		26	CONN FFC	CN911	9728809400	FFC 1.25X27X360MM K	
224	R CHIP	R595L/R	HRFT101JBA	1/10 100 OHM J 1608		27	CONN FFC	CN912	9728809300	FFC 1.25X11X230MM R	
225	R CHIP	R596A/B/C/L/R/W	HRFT224JBA	1/10 220K OHM J 1608		28	CONN WAFER	CP901	9CD6264000	52044-1145	
226	R METAL FILM	R597	RN-4Z221J-	1/4W 220 OHM J		29	CONN WAFER	CP903	9CD6264200	52044-2745	
227	R CHIP	R598	HRFT103JBA	1/10 10K OHM J 1608		30	DIODE SW CHIP	D902	DZDS160---	KDS160	
228	R CHIP	R598A/B/C/L/R/W	HRFT104JBA	1/10 100K OHM J 1608		31	DIODE ZENER	D903	DZTZ3R3B--	MTZ 3.3V B	
229	R CHIP	R599	HRFT102JBA	1/10 1K OHM J 1608		32	DIODE SW CHIP	D904	DZDS160---	KDS160	
230	R CHIP	R599L/R	HRFT104JBA	1/10 100K OHM J 1608		33	DIODE	D905	DZN4007---	IN4007	
231	R CHIP	R600	HRFT474JBA	1/10 470K OHM J 1608		34	DIODE SW CHIP	D906	DZDS160---	KDS160	
232	R CHIP	R601-602	HRFT332JBA	1/10 3.3K OHM J 1608		35	DIODE ZENER	D908	DZTZ6R8B--	MTZ6.8B	
233	R CHIP	R601A/B/C/L/R/W	HRFT101JBA	1/10 100 OHM J 1608		36	FL DISPLAY	FL901	DHNA11MM37	NHA-11MM37	
234	R CHIP	R602A/B/C/L/R/W	HRFT473JBA	1/10 47K OHM J 1608		37	IC MICOM	IC904	1CXP82852-	CXP82852-329Q	
235	R CHIP	R603A/B/C/L/R	HRFT562JBA	1/10 5.6K OHM J 1608		38	IC RMC MODULE	IC905	1TM97CT38-	TM97CT38P	
236	R CHIP	R603W	HRFT103JBA	1/10 10K OHM J 1608		39	R CHIP	L903	HRFT000-BA	1/10 0 OHM 1608	
237	R CHIP	R604A/B/C/L/R	HRFT392JBA	1/10 3.9K OHM J 1608		40	TR	Q903	TZTC3875--	KTC3875	
238	R CHIP	R604W	HRFT751JBA	1/10 750 OHM J 1608		41	TR CHIP	Q904	TZRC102S--	KRC102S	
239	R CHIP	R605A/B/C/L/R/W	HRFT104JBA	1/10 100K OHM J 1608		42	R CHIP	R1001	HRFT103JBA	1/10 10K OHM J 1608	
240	R CHIP	R606A/B/C/L/R/W	HRFT102JBA	1/10 1K OHM J 1608		43	R CHIP	R1002	HRFT473JBA	1/10 47K OHM J 1608	
241	R CHIP	R607	HRFT103JBA	1/10 10K OHM J 1608		44	R CHIP	R1003-1010	HRFT103JBA	1/10 10K OHM J 1608	
242	R CHIP	R608	HRFT223JBA	1/10 22K OHM J 1608		45	R CHIP	R1011-1013	HRFT473JBA	1/10 47K OHM J 1608	
243	R CHIP	R608W	HRFT102JBA	1/10 1K OHM J 1608		46	R CHIP	R1014	HRFT101JBA	1/10 100 OHM J 1608	
244	R CHIP	R609	HRFT122JBA	1/10 1.2K OHM J 1608		47	R CHIP	R1015	HRFT472JBA	1/10 4.7K OHM J 1608	
245	R CHIP	R610	HRFT000-BA	1/10 0 OHM 1608		48	R CHIP	R926-928	HRFT473JBA	1/10 47K OHM J 1608	
246	R CHIP	R611	HRFT183JBA	1/10 18K OHM J 1608		49	R CHIP	R929	HRFT100JBA	1/10 10 OHM J 1608	
247	R CHIP	R612-619	HRFT000-BA	1/10 0 OHM 1608		50	R CHIP	R930	HRFT104JBA	1/10 100K OHM J 1608	
248	R CHIP	R620-627	HRFT103JBA	1/10 10K OHM J 1608		51	R CHIP	R931-933	HRFT101JBA	1/10 100 OHM J 1608	
249	X-TAL	X501	5XE12R288J	12.288MHZ HC-49U		52	R CHIP	R934-936	HRFT220JBA	1/10W 22 OHM J 1608	
1	PCB FRONT AS	15000	9CDC059500	DV-135		53	R CHIP	R937-940	HRFT101JBA	1/10 100 OHM J 1608	
2	PCB FRONT	B001	9CD6584500	242X329		54	R CHIP	R941-942	HRFT471JBA	1/10 470 OHM J 1608	
3	C CHIP CERA	C932-933	HCBK103KBA	50V X7R 0.01MF K 1608		55	R CHIP	R943	HRFT473JBA	1/10 47K OHM J 1608	
4	C CHIP CERA	C934-939	HCQK101JBA	50V CH 100PF J 1608		56	R CHIP	R944	HRFT471JBA	1/10 470 OHM J 1608	
5	C ELECTRO	C940	CEXP1C470V	16V REM 47MF		57	R CHIP	R945-946	HRFT473JBA	1/10 47K OHM J 1608	
6	C CHIP CERA	C941	HCBK473KBA	50V X7R 0.047MF K 1608		58	R CHIP	R947-948	HRFT102JBA	1/10 1K OHM J 1608	
7	C CHIP CERA	C946-947	HCQK101JBA	50V CH 100PF J 1608		59	R CHIP	R949-950	HRFT472JBA	1/10 4.7K OHM J 1608	
8	C CHIP CERA	C948	HCBK103KBA	50V X7R 0.01MF K 1608		60	R CHIP	R951	HRFT103JBA	1/10 10K OHM J 1608	

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NO	PART NAME	LOCATION	PART CODE	PART DESC	REMARKS	NO	PART NAME	LOCATION	PART CODE	PART DESC	REMARKS
61	R CHIP	R952	HRFT224JBA	1/10 220K OHM J 1608		13	C ELECTRO	C719	CEXF1E102E	25V RM 1000MF (10X20)	
62	R CHIP	R953	HRFT103JBA	1/10 10K OHM J 1608		14	C ELECTRO	C720-721	CEXF1E471E	25V RM 470MF (10X12.5)	
63	R CHIP	R954	HRFT680JBA	1/10 68 OHM J 1608		15	C MYLAR	C722-724	CMXM2A473J	100V 0.047MF J (TP)	
64	R CHIP	R955	HRFT271JBA	1/10 270 OHM J 1608		16	C ELECTRO	C725	CEXF1C682E	16V RM 6800MF (16X35.5)	
65	R CHIP	R956-958	HRFT103JBA	1/10 10K OHM J 1608		17	C CERA	C726	CCXF1H104Z	50V F 0.1MF Z	
66	R CHIP	R960	HRFT122JBA	1/10 1.2K OHM J 1608		18	C ELECTRO	C727	CEXF1C471E	16V RM 470MF (8X11.5)	
67	R CHIP	R961-962	HRFT152JBA	1/10 1.5K OHM J 1608		19	C CERA	C728	CCXF1H104Z	50V F 0.1MF Z	
68	R CHIP	R963-964	HRFT272JBA	1/10 2.7K OHM J 1608		20	C MYLAR	C729-731	CMXM2A473J	100V 0.047MF J (TP)	
69	R CHIP	R965	HRFT472JBA	1/10 4.7K OHM J 1608		21	C ELECTRO	C740	CEXF1H100E	50V RM 10MF (5X11) TP	
70	R CHIP	R968	HRFT122JBA	1/10 1.2K OHM J 1608		22	C MYLAR	C741A/B/C/L/R	CMXM2A104J	100V 0.1MF J (TP)	
71	R CHIP	R969-970	HRFT152JBA	1/10 1.5K OHM J 1608		23	C CERA	C742A/B/C/L/R	CCXF1H103Z	50V F 0.01MF Z (TAPPING)	
72	R CHIP	R971-972	HRFT272JBA	1/10 2.7K OHM J 1608		24	C ELECTRO	C743	CEXF1H479E	50V RM 4.7MF (5X11) TP	
73	R CHIP	R973	HRFT472JBA	1/10 4.7K OHM J 1608		25	C ELECTRO	C744	CEXF1H100E	50V RM 10MF (5X11) TP	
74	R CHIP	R974	HRFT822JBA	1/10 8.2K OHM J 1608		26	C ELECTRO	C745	CEXF1E101E	25V RM 100MF (6.3X11) TP	
75	R CHIP	R975	HRFT101JBA	1/10 100 OHM J 1608		27	C CERA	C746	CCXF1H473Z	50V F 0.047MF Z (TAPPING)	
76	R CHIP	R976	HRFT122JBA	1/10 1.2K OHM J 1608		28	C ELECTRO	C747	CEXF1E101E	25V RM 100MF (6.3X11) TP	
77	R CHIP	R977-978	HRFT152JBA	1/10 1.5K OHM J 1608		29	C ELECTRO	C751	CEXF1H108E	50V RM 0.1MF (5X11) TP	
78	R CHIP	R979-980	HRFT272JBA	1/10 2.7K OHM J 1608		30	C CERA	C752A/B/C/L/R	CCZB1H471K	50V B 470PF K	
79	R CHIP	R981	HRFT472JBA	1/10 4.7K OHM J 1608		31	C ELECTRO	C753-754	CEXF1H108E	50V RM 0.1MF (5X11) TP	
80	R CHIP	R982	HRFT822JBA	1/10 8.2K OHM J 1608		32	C ELECTRO	C755A	CEXF1H229E	50V RM 2.2MF (5X11) TP	
81	R CHIP	R983	HRFT102JBA	1/10 1K OHM J 1608		33	C ELECTRO	C755B/C/L/R	CEXF1H229V	50V RSS 2.2MF (5X11) TP	
82	R CHIP	R984	HRFT000-BA	1/10 0 OHM 1608		34	C CERA	C756A/B/C/L/R	CCZB1H221K	50V B 220PF K	
83	R CHIP	R987	HRFT103JBA	1/10 10K OHM J 1608		35	C ELECTRO	C757A/B/C/L/R	CEXF1H330E	50V RM 33MF (5X11) TP	
84	SW TACT	SW901-924	5S50101001	KPT-1105A 1C-1P		36	C CERA	C758A/B/C/L/R	CZCH1H309K	CH 50V 3PF K AXL 26MM	
85	VOL ENCODER	VR904	5SH1624368	EC16B241040B		37	C CERA	C759A/B/C/L/R	CCXF1H223Z	50V F 0.022MF Z (TAPPING)	
86	RESONATOR CERA	X901	5PCST10MTW	CST10.00MTW		38	C CERA	C760	CCXF1H223Z	50V F 0.022MF Z (TAPPING)	
1	PCB H/P AS	17000	9CDC0595B0	DV-135		39	C ELECTRO	C761	CEXF1H100E	50V RM 10MF (5X11) TP	
2	PCB H/P	B001	9CD6584501	242X329		40	C CERA	C762	CCXF1H223Z	50V F 0.022MF Z (TAPPING)	
3	C CHIP CERA	C992	HCBK103KBA	50V X7R 0.01MF K 1608		41	C ELECTRO	C763	CEXF1H100E	50V RM 10MF (5X11) TP	
4	C CHIP CERA	C993-994	HCBK102KBA	50V X7R 1000PF K 1608		42	C ELECTRO	C764-765	CEXF1V101E	35V RM 100MF (6.3X11) TP	
5	CONN WAFER	CP902	9728808800	2.0MM PH-3AW 3P		43	C ELECTRO	C766	CEXF1H100E	50V RM 10MF (5X11) TP	
6	CONN WAFER	CP992	9728808900	2.0MM PH-7A 7P		44	C CERA	C767	CCXF1H223Z	50V F 0.022MF Z (TAPPING)	
7	COIL CHIP	L911-912	HLC104J01A	BEAD 120 OHM 100MHZ 2012		45	C ELECTRO	C768	CEXF1V101E	35V RM 100MF (6.3X11) TP	
8	COIL CHIP	L916	HLC104J01A	BEAD 120 OHM 100MHZ 2012		46	C CERA	C769	CCXF1H223Z	50V F 0.022MF Z (TAPPING)	
9	JACK HEADPHONE	PH991	9766319502	HTJ-064-05B GOLD		47	C ELECTRO	C770	CEXF1H100E	50V RM 10MF (5X11) TP	
1	PCB KEY SW AS	18000	9CDC0595C0	DV-135		48	C ELECTRO	C771	CEXF1V101E	35V RM 100MF (6.3X11) TP	
2	PCB KEY SW	B001	9CD6584502	242X329		49	C CERA	C772-773	CCXF1H103Z	50V F 0.01MF Z (TAPPING)	
3	CONN WAFER	CP906	9728808800	2.0MM PH-3AW 3P		50	C CERA	C780L/R-785L/R	CZCH1H101J	CH 50V 100PF J AXL 52MM	
4	LED	D907	DLTL16KEE-	LTL-16KEE(RED)PI3.1		51	C CERA	C786-787	CCXF1H103Z	50V F 0.01MF Z (TAPPING)	
5	SW TACT	SW907	5S50101001	KPT-1105A 1C-1P		52	C CERA	C790-791	CCXF1H104Z	50V F 0.1MF Z	
1	PCB MAIN AS	10000	9CDC058900	DV-115		53	C ELECTRO	C792-793	CEXF1H479E	50V RM 4.7MF (5X11) TP	
2	PCB MAIN	B001	9CD6583600	247X330		54	C ELECTRO	C793L/R-794L/R	CEXF1H100E	50V RM 10MF (5X11) TP	
3	C ELECTRO	C702	CEXF1E102E	25V RM 1000MF (10X20)		55	C ELECTRO	C795	CEXF1C682E	16V RM 6800MF (16X35.5)	
4	C CERA AC	C703	CH1BFE472M	4.0KV 4700PF M SD AC250V		56	C CERA	C795A/B/C/L/R	CCZB1H222K	50V HIKB 2200PF K AXL 52M	
5	C ELECTRO	C705	CEXF1H100E	50V RM 10MF (5X11) TP		57	C CERA	C796	CZCH1H101J	CH 50V 100PF J AXL 52MM	
6	C MYLAR	C707	CMXM2E104J	250V 0.1MF J		58	CONN WAFER	CN702	9CD6263900	52045-1745	
7	C MYLAR	C709-710	CMXM2E104J	250V 0.1MF J		59	CONN AS	CN706	9728810400	#18 P3.96 3P 210MM UL1007	
8	C ELECTRO	C711-712	CEXF1V472E	35V RM 4700MF (18X35.5)		60	CONN AS	CN993	9728809800	#22 P7.92 2P 460MM UL1617	
9	C ELECTRO	C713	CEXF1J331E	63V RM 330MF (6.3X11)		61	CONN WAFER	CP502	9728807700	35336-1110 WAFER	
10	C ELECTRO	C714	CEXF1H109E	50V RM 1MF (5X11) TP		62	CONN WAFER	CP503	9728807800	35336-1810 WAFER	
11	C MYLAR	C715-717	CMXM2A473J	100V 0.047MF J (TP)		63	CONN WAFER	CP701	9728808100	GP390-03P-TS-M(W/O CENTER	
12	C ELECTRO	C718	CEXF1E472E	25V RM 4700MF (16X31.5)		64	CONN WAFER	CP702	9728808200	VH-3A (W/O CENTER,RED)	

17. Electrical Parts List

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NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS	NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS
65	CONN WAFER	CP703	9728808300	VH-3A (W/O CENTER)		117	TR	Q705	TKRC107M--	KRC107-M TAPPING(KSR1006)	
66	CONN WAFER	CP704	9728808500	VH-3A WAFER		118	TR	Q706	TZTA1266Y-	KTA1266Y- (AUTO)(1015Y)	
67	CONN AS	CP705	9728810500	#24 P2.0 8P 140MM UL 1007		119	TR	Q707-709	TZTC3199Y-	KTC-3199Y TAPING	
68	CONN WAFER	CP706	9728807900	5267-02A WAFER		120	TR	Q710	TZTA1266Y-	KTA1266Y- (AUTO)(1015Y)	
69	CONN WAFER	CP707	9728808000	5267-06A WAFER		121	TR	Q711	TZTC3200GR	KTC3200GR (AUTO)(2240GR)	
70	CONN WAFER	CP708	9728808400	VH-2A WAFER		122	TR	Q712	TKRA102M--	KRA 102-M (TAPPING)	
71	CONN AS	CP710	9728810200	#26 P2.0 6P 120MM UL 1007		123	TR	Q713	TZTC102M--	KRC102M	
72	CONN WAFER	CP711	9728808700	2.0MM PH-8A 8P		124	TR	Q717-720	TZRA102M--	KRA102M(KEC)	
73	CONN WAFER	CP903	9CD6263800	52045-2745		125	TR	Q721-725	TZRC231M--	KRC231M(KEC)	
74	DIODE	D701	D1N4007---	IN4007		126	TR	Q726	TZTC3200GR	KTC3200GR (AUTO)(2240GR)	
75	DIODE ZENER	D702	DZTZ3R3B--	MTZ 3.3V B		127	TR	Q727	TZRC102M--	KRC102M(KEC)	
76	DIODE	D703-706	D1N4007---	IN4007		128	TR	Q727A/B/C/L/R	TZTC3199Y-	KTC-3199Y TAPING	
77	DIODE	D707	DZNA148---	1N4148 AUTO 52MM		129	TR	Q730	TKRC107M--	KRC107-M TAPPING(KSR1006)	
78	DIODE ZENER	D708	DZTZ15B---	MTZ 15V B		130	R METAL FILM	R701-702	RN-4Z109J-	1/4 1 OHM J	
79	DIODE	D709	DKBPC806--	KBPC806		131	R CARBON FILM	R703	RD-AZ182J-	1/6 1.8K OHM J	
80	DIODE	D710	D1N4007---	IN4007		132	R CARBON FILM	R705	RD-AZ221J-	1/6 220 OHM J	
81	DIODE	D711A/B/C/L/R	DZNA148---	1N4148 AUTO 52MM		133	R CARBON FILM	R706	RD-AZ223J-	1/6 22K OHM J	
82	DIODE ZENER	D712	DZTZ12B---	MTZ 12V 26MM TAPPING		134	R METAL FILM	R707	RN-4Z680J-	1/4 68 OHM J	
83	DIODE ZENER	D713	DZTZ22B---	MTZ 22V B		135	R CARBON FILM	R708	RD-AZ102J-	1/6 1K OHM J	
84	DIODE	D714-717	D1N4007---	IN4007		136	R METAL FILM	R709-710	RN-4Z109J-	1/4 1 OHM J	
85	DIODE	D718-719	DZNA148---	1N4148 AUTO 52MM		137	R CARBON FILM	R711	RD-AZ103J-	1/6 10K OHM J	
86	DIODE	D720-723	D1N4007---	IN4007		138	R METAL FILM	R715-717	RN-4Z109J-	1/4 1 OHM J	
87	DIODE	D724	DKBPC806--	KBPC806		139	R CARBON FILM	R718-719	RD-AZ103J-	1/6 10K OHM J	
88	DIODE ZENER	D725	DZTZ4R3B--	MTZ4.3B		140	R CARBON FILM	R720-722	RD-AZ102J-	1/6 1K OHM J	
89	DIODE	D726-727	DZNA148---	1N4148 AUTO 52MM		141	R METAL FILM	R723A/B/C/L/R	RN01B100JS	1W 10 OHM J SMALL	
90	DIODE	D729	DZNA148---	1N4148 AUTO 52MM		142	R METAL FILM	R724A/B/C/L/R	RN01B100JS	1W 10 OHM J SMALL	
91	DIODE ZENER	D730	DZTZ5R6B--	UZ-5.6B		143	R CARBON FILM	R726A/B/C/L/R	RD-AZ223J-	1/6 22K OHM J	
92	DIODE	D731-741	DZNA148---	1N4148 AUTO 52MM		144	R CARBON FILM	R729	RD-AZ153J-	1/6 15K OHM J	
93	DIODE	D743-744	DZNA148---	1N4148 AUTO 52MM		145	R METAL FILM	R730	RN-4Z473J-	1/4 47K OHM J	
94	DIODE ZENER	D745	DZTZ9R1B--	TZ-9.1V		146	R CARBON FILM	R731-732	RD-AZ473J-	1/6 47K OHM J	
95	DIODE	D746	DZNA148---	1N4148 AUTO 52MM		147	R CARBON FILM	R734	RD-AZ473J-	1/4 47K OHM J	
96	FUSE GLASS TUBE	F701	5FSGB1022L	SEMKO TL 1A 250V MF51		148	R CARBON FILM	R735	RD-AZ104J-	1/6 100K OHM J	
97	FUSE GLASS TUBE	F702	5FSGB2022L	SEMKO TL 2A 250V MF51		149	R CARBON FILM	R736	RD-AZ473J-	1/4 47K OHM J	
98	FUSE GLASS TUBE	F703	5FSGB4022L	SEMKO TL 4A 250V MF51		150	R CARBON FILM	R740	RD-AZ102J-	1/6 1K OHM J	
99	HOLDER FUSE CLIP	FC701-706	9734600800	PI5.2 - REEL		151	R CARBON FILM	R742A/B/C/L/R	RD-AZ102J-	1/6 1K OHM J	
100	TERMINAL GND	G701-702	9CD6450500	SNP 0.3T		152	R CARBON FILM	R743	RD-AZ474J-	1/6 470K OHM J	
101	IC REGULATOR	IC701	1K1A7805AP	K1A7805AP		153	R CARBON FILM	R745	RD-AZ102J-	1/6 1K OHM J	
102	IC PROTECTOR	IC702	11CPN15---	ICP-N15		154	R CARBON FILM	R747	RD-AZ474J-	1/6 470K OHM J	
103	IC REGULATOR	IC703	1K1A7812AP	K1A7812AP		155	R CARBON FILM	R750	RD-AZ102J-	1/6 1K OHM J	
104	IC	IC704	1K1A7912AP	K1A7912AP (MOLD)		156	R CARBON FILM	R751	RD-AZ474J-	1/6 470K OHM J	
105	IC REGULATOR	IC705	1K1A7805AP	K1A7805AP		157	R CARBON FILM	R754A/B/C/L/R	RD-AZ182J-	1/6 1.8K OHM J	
106	IC POWER	IC709	1STK402250	STK 402-250		158	R CARBON FILM	R755A/B/C/L/R	RD-AZ563J-	1/6 56K OHM J	
107	IC POWER	IC710	1STK402050	STK 402-050		159	R CARBON FILM	R756A/B/C/L/R	RD-AZ563J-	1/6 56K OHM J	
108	IC OP AMP	IC711	1NJM4558D	NJM4558D		160	R CARBON FILM	R757A/B/C/L/R	RD-AZ202J-	1/6 2K OHM J	
109	IC SWITCH	IC712	1NJU7313AM	NJU7313AM (SW ARRAY SOP)		161	R CARBON FILM	R758A/B/C/L/R	RD-AZ202J-	1/6 2K OHM J	
110	JACK SPK TERMINAL	JA701	9736324300	P40420428P		162	R METAL FILM	R759A/B/C/L/R	RN01B228JS	1W 0.22 OHM J SMALL	
111	JACK SPK TERMINAL	JA702	9736324400	P40620702P		163	R METAL FILM	R760-761	RN-4Z101J-	1/4 100 OHM J	
112	AC OUTLET	JA703	9736324500	A302D0061P		164	R CARBON FILM	R762-763	RD-AZ103J-	1/6 10K OHM J	
113	JACK RCA	JA704-705	9736323600	JK0600460		165	R CARBON FILM	R764	RD-AZ203J-	1/6 20K OHM J	
114	COIL SPRING	L723A/B/C/L/R	5L00000732	PI10X1.0X7T (R) CW		166	R METAL FILM	R765	RN-4Z101J-	1/4 100 OHM J	
115	TR	Q702	TKRC107M--	KRC107-M TAPPING(KSR1006)		167	R CARBON FILM	R766	RD-AZ203J-	1/6 20K OHM J	
116	TR	Q704	TZTA1024Y-	KTA1024Y (949Y)		168	R METAL FILM	R767	RN-4Z101J-	1/4 100 OHM J	

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NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS	NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS
169	R CARBON FILM	R772L/R-777L/R	RD-AZ471J-	1/6 470 OHM J		39	IC	IC902	1ES56033--	ES56033	
170	R CARBON FILM	R778L/R-783L/R	RD-AZ275J-	1/6 2.7M OHM J		40	IC CHIP	IC903	1NJM4558M-	NJM4558M	
171	R CARBON FILM	R784L/R-785L/R	RD-AZ104J-	1/6 100K OHM J		41	JACK MIC	JA901	9736324200	H20480060S	
172	R CARBON FILM	R786L/R	RD-AZ101J-	1/6 100 OHM J		42	COIL CHIP	L914-915	HLC104J01A	BEAD 120 OHM 100MHZ 2012	
173	R CARBON FILM	R788L/R	RD-AZ101J-	1/6 100 OHM J		43	TR	Q901	TZTC3200GR	KTC3200GR (AUTO)(2240GR)	
174	R CARBON FILM	R789L/R	RD-AZ104J-	1/6 100K OHM J		44	TR CHIP	Q905L/R	TZRC231S--	KRC231S	
175	R CARBON FILM	R790-792	RD-AZ101J-	1/6 100 OHM J		45	TR CHIP	Q906	TZRA102S--	KRA102S (10X10)PNP	
176	R METAL FILM	R793L/R	RN01B331J5	1W 330 OHM J SMALL		46	TR CHIP	Q907	TZRC104S--	KRC104S	
177	R CARBON FILM	R799	RD-AZ472J-	1/6 4.7K OHM J		47	R CHIP	R901	HRFT561JBA	1/10 560 OHM J 1608	
178	R CARBON FILM	R799A/B/C/L/R	RD-AZ333J-	1/6 33K OHM J		48	R CHIP	R902	HRFT103JBA	1/10 10K OHM J 1608	
179	SW RELAY	RY701	5SC2001A01	SDT-S-105LMR		49	R CHIP	R903	HRFT473JBA	1/10 47K OHM J 1608	
180	SW RELAY	RY702	5SC0201103	HR-CR323 2C-1P DC12V		50	R CHIP	R904	HRFT561JBA	1/10 560 OHM J 1608	
181	SW RELAY	RY703	5SC0101370	SDT-S-112LMR		51	R CHIP	R905	HRFT563JBA	1/10 56K OHM J 1608	
182	TRANS POWER	T701	5TP8028855	El=28X12 8.5V 150MA 230V		52	R CHIP	R906	HRFT392JBA	1/10 3.9K OHM J 1608	
1	PCB MIC AS	16000	9CDC0595A0	DV-135		53	R CHIP	R908	HRFT103JBA	1/10 10K OHM J 1608	
2	PCB MIC	B001	9CD6585300	242X329		54	R CHIP	R909	HRFT123JBA	1/10 12K OHM J 1608	
3	C ELECTRO	C901	CEXF1H479E	50V RM 4.7MF (5X11) TP		55	R CHIP	R910	HRFT103JBA	1/10 10K OHM J 1608	
4	C CHIP CERA	C902	HCQK101JBA	50V CH 100PF J 1608		56	R CHIP	R911-912	HRFT153JBA	1/10 15K OHM J 1608	
5	C ELECTRO	C903	CEXF1H220E	50V RM 22MF (5X11) TP		57	R CHIP	R913	HRFT123JBA	1/10 12K OHM J 1608	
6	C CHIP CERA	C904	HCQK221JBA	50V CH 220PF J 1608		58	R CHIP	R914	HRFT103JBA	1/10 10K OHM J 1608	
7	C ELECTRO	C905	CEXF1H479E	50V RM 4.7MF (5X11) TP		59	R CHIP	R915	HRFT153JBA	1/10 15K OHM J 1608	
8	C CHIP CERA	C906	HCBK102KBA	50V X7R 1000PF K 1608		60	R CHIP	R916	HRFT562JBA	1/10 5.6K OHM J 1608	
9	C ELECTRO	C907	CEXF1H100E	50V RM 10MF (5X11) TP		61	R CHIP	R917	HRFT123JBA	1/10 12K OHM J 1608	
10	C CHIP CERA	C908	HCBK472KBA	50V X7R 4700PF K 1608		62	R CHIP	R919	HRFT183JBA	1/10 18K OHM J 1608	
11	C ELECTRO	C909	CEXF1H339E	50V RM 3.3MF (5X11) TP		63	R CHIP	R920	HRFT221JBA	1/10 220 OHM J 1608	
12	C CHIP CERA	C910	HCQK561JBA	50V CH 560PF J 1608		64	R CARBON FILM	R921	RD-4Z331J-	1/4 330 OHM J	
13	C CHIP CERA	C911	HCBK563KBA	50V X7R 0.056MF K 1608		65	R CHIP	R923L/R	HRFT472JBA	1/10 4.7K OHM J 1608	
14	C ELECTRO	C912	CEXF1H100E	50V RM 10MF (5X11) TP		66	R CHIP	R924L/R	HRFT103JBA	1/10 10K OHM J 1608	
15	C CHIP CERA	C913	HCBK392KBA	50V X7R 3900PF K 1608		67	R CHIP	R925L/R	HRFT472JBA	1/10 4.7K OHM J 1608	
16	C CHIP CERA	C914	HCBK563KBA	50V X7R 0.056MF K 1608		68	R CHIP	R966	HRFT104JBA	1/10 100K OHM J 1608	
17	C CHIP CERA	C915	HCQK561JBA	50V CH 560PF J 1608		69	R CHIP	R983L/R	HRFT104JBA	1/10 100K OHM J 1608	
18	C CHIP CERA	C916-917	HCBK472KBA	50V X7R 4700PF K 1608		70	R CHIP	R984L/R	HRFT223JBA	1/10 22K OHM J 1608	
19	C ELECTRO	C918	CEXF1H220E	50V RM 22MF (5X11) TP		71	R CHIP	R985	HRFT102JBA	1/10 1K OHM J 1608	
20	C CHIP CERA	C919	HCQK221JBA	50V CH 220PF J 1608		72	R CHIP	R986	HRFT474JBA	1/10 470K OHM J 1608	
21	CLECTRO	C920	CEXF1C221E	RM 16V 220MF 6.3X11 TAT		73	VR ROTARY	VR901	5V1503727B	RK09K1110303 50KB	
22	C CHIP CERA	C921-923	HCBK104KBA	50V X7R 0.1MF K 1608		74	VR ROTARY	VR903	5V1503727B	RK09K1110303 50KB	
23	C ELECTRO	C924	CEXF1E101E	25V RM 100MF (6.3X11) TP		1	PCB MPEG AS	14000	9CDC059100	DV-115	
24	C ELECTRO	C925	CEXF1H100E	50V RM 10MF (5X11) TP		2	PCB MPEG	B001	9CD6584000	91X147	
25	CLECTRO	C926	CEXF1C221E	RM 16V 220MF 6.3X11 TAT		3	COIL BEAD	BD401-406	58C0000116	HC-3550R	
26	C CHIP CERA	C927	HCBK103KBA	50V X7R 0.01MF K 1608		4	C CHIP CERA	C401	HCBK104KBA	50V X7R 0.1MF K 1608	
27	CLECTRO	C928	CEXF1C221E	RM 16V 220MF 6.3X11 TAT		5	C CHIP CERA	C402-403	HCQK220JBA	50V CH 22PF J 1608	
28	C CHIP CERA	C929	HCBK103KBA	50V X7R 0.01MF K 1608		6	C CHIP CERA	C404	HCBK104KBA	50V X7R 0.1MF K 1608	
29	C CHIP CERA	C930L/R	HCBK102KBA	50V X7R 1000PF K 1608		7	C ELECTRO	C405	CEXF1E101E	25V RM 100MF (6.3X11) TP	
30	C ELECTRO	C931L/R	CEXF1H479E	50V RM 4.7MF (5X11) TP		8	C CHIP CERA	C406-407	HCBK104KBA	50V X7R 0.1MF K 1608	
31	C ELECTRO	C967	CEXF1H108E	50V RM 0.1MF (5X11) TP		9	C ELECTRO	C408	CEXF1H100E	50V RM 10MF (5X11) TP	
32	C ELECTRO	C968L/R	CEXF1H100E	50V RM 10MF (5X11) TP		10	C CHIP CERA	C409	HCBK105KBA	50V X7R 1MF K 1608	
33	C CHIP CERA	C969	HCBK103KBA	50V X7R 0.01MF K 1608		11	C CHIP CERA	C410-412	HCBK104KBA	50V X7R 0.1MF K 1608	
34	CONN AS	CN905	9728811400	P2.0 3P 270MM SHIELD		12	C ELECTRO	C413	CEXF1E101E	25V RM 100MF (6.3X11) TP	
35	CONN AS	CN907	9728809500	#26 P2.0 8P 180MM UL 1007		13	C CHIP CERA	C414	HCBK104KBA	50V X7R 0.1MF K 1608	
36	CONN WAFER	CP904	9728808600	2.0MM PH-6AW 6P		14	C ELECTRO	C415	CEXF1E101E	25V RM 100MF (6.3X11) TP	
37	DIODE ZENER	D901	DZT25R6B--	UZ-5.6B		15	C CHIP CERA	C416	HCBK102KBA	50V X7R 1000PF K 1608	
38	IC CHIP	IC901	1NJM4558M-	NJM4558M		16	C CHIP CERA	C417	HCBK473KBA	50V X7R 0.047MF K 1608	

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NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS	NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS
17	C CHIP CERA	C418	HCQK220JBA	50V CH 22PF J 1608		68	IC VIDEO ENCODER	IC410	1CS4955---	CS4955	
18	C CHIP CERA	C419	HCBK104KBA	50V X7R 0.1MF K 1608		70	IC REGULATOR	IC411	1AME1117CC	AME1117CCCT (TO-252)	
19	C CHIP CERA	C420	HCQK330JBA	50V CH 33PF J 1608		71	JACK ATAPI	JK401	9736324700	40P ATAPI	
20	C CHIP CERA	C421-423	HCBK104KBA	50V X7R 0.1MF K 1608		72	COIL CHIP	L401	HLC279J03A	2.7UH CHIP 3216	
21	C ELECTRO	C424	CEXF1E101E	25V RM 100MF (6.3X11) TP		73	COIL CHIP	L402-407	HLC189J02A	1.8UH CHIP 3216	
22	C CHIP CERA	C425-429	HCBK104KBA	50V X7R 0.1MF K 1608		74	CONN WAFER	PN401	9728810700	2.0MM PH-11AW 11P	
23	C ELECTRO	C430	CEXF1E101E	25V RM 100MF (6.3X11) TP		75	CONN WAFER	PN402	9728810800	2.0MM PH-4A 4P	
24	C CHIP CERA	C431-434	HCBK104KBA	50V X7R 0.1MF K 1608		76	CONN AS	PN403	9728810100	#24 P2.0 5P 120MM UL 1007	
25	C CHIP CERA	C437-441	HCQK150JBA	50V CH 15PF J 1608		77	CABLE ATAPI	PN404	9728811100	ATAPI CABLE 40P 250MM	
26	C CHIP CERA	C442	HCBK104KBA	50V X7R 0.1MF K 1608		78	R CHIP	R401-402	HRFT472JBA	1/10 4.7K OHM J 1608	
27	C ELECTRO	C443	CEXF1E101E	25V RM 100MF (6.3X11) TP		79	R CHIP	R404	HRFT472JBA	1/10 4.7K OHM J 1608	
28	C CHIP CERA	C444-446	HCBK104KBA	50V X7R 0.1MF K 1608		80	R CHIP	R405	HRFT181JBA	1/10 180 OHM J 1608	
29	C CHIP CERA	C447-458	HCQK150JBA	50V CH 15PF J 1608		81	R CHIP	R406-411	HRFT472JBA	1/10 4.7K OHM J 1608	
30	C ELECTRO	C459	CEXF1E101E	25V RM 100MF (6.3X11) TP		82	R CHIP	R412	HRFT102JBA	1/10 1K OHM J 1608	
31	C CHIP CERA	C460-461	HCBK104KBA	50V X7R 0.1MF K 1608		83	R CHIP	R413-416	HRFT103JBA	1/10 10K OHM J 1608	
32	C ELECTRO	C462	CEXF1E101E	25V RM 100MF (6.3X11) TP		84	R CHIP	R420	HRFT229JCA	1/10 2.2 OHM J 2012	
33	C CHIP CERA	C467	HCQK221JBA	50V CH 220PF J 1608		85	R CHIP	R422	HRFT330JBA	1/10 33 OHM J 1608	
34	C CHIP CERA	C468	HCQK330JBA	50V CH 33PF J 1608		86	R CHIP	R423	HRFT472JBA	1/10 4.7K OHM J 1608	
35	C CHIP CERA	C469	HCQK221JBA	50V CH 220PF J 1608		87	R CHIP	R424	HRFT330JBA	1/10 33 OHM J 1608	
36	C ELECTRO	C470	CEXF1C221E	RM 16V 220MF 6.3X11 TAT		88	R CHIP	R425	HRFT220JBA	1/10W 22 OHM J 1608	
37	C CHIP CERA	C473	HCBK104KBA	50V X7R 0.1MF K 1608		89	R CHIP	R426-427	HRFT330JBA	1/10 33 OHM J 1608	
38	C ELECTRO	C474	CEXF1E101E	25V RM 100MF (6.3X11) TP		90	R CHIP	R428	HRFT820JBA	1/10 82 OHM J 1608	
39	C CHIP CERA	C475-477	HCBK104KBA	50V X7R 0.1MF K 1608		91	R CHIP	R429	HRFT562JBA	1/10 5.6K OHM J 1608	
40	C ELECTRO	C478	CEXF1E101E	25V RM 100MF (6.3X11) TP		92	R CHIP	R430	HRFT102JBA	1/10 1K OHM J 1608	
41	C CHIP CERA	C479	HCQK221JBA	50V CH 220PF J 1608		93	R CHIP	R431	HRFT220JBA	1/10W 22 OHM J 1608	
42	C CHIP CERA	C480	HCQK330JBA	50V CH 33PF J 1608		94	R CHIP	R432	HRFT102JBA	1/10 1K OHM J 1608	
43	C CHIP CERA	C481	HCQK221JBA	50V CH 220PF J 1608		95	R CHIP	R433-434	HRFT220JBA	1/10W 22 OHM J 1608	
44	C ELECTRO	C482	CEXF1C221E	RM 16V 220MF 6.3X11 TAT		96	R CHIP	R435-436	HRFT820JBA	1/10 82 OHM J 1608	
45	C CHIP CERA	C483	HCQK221JBA	50V CH 220PF J 1608		97	R CHIP	R437	HRFT220JBA	1/10W 22 OHM J 1608	
46	C CHIP CERA	C484	HCQK330JBA	50V CH 33PF J 1608		98	R CHIP	R449	HRFT101JBA	1/10 100 OHM J 1608	
47	C CHIP CERA	C485	HCQK221JBA	50V CH 220PF J 1608		99	R CHIP	R453-454	HRFT470JBA	1/10 47 OHM J 1608	
48	C ELECTRO	C486	CEXF1C221E	RM 16V 220MF 6.3X11 TAT		100	R CHIP	R457	HRFT000-BA	1/10 0 OHM 1608	
49	C CHIP CERA	C487	HCQK221JBA	50V CH 220PF J 1608		101	R CHIP	R458-466	HRFT472JBA	1/10 4.7K OHM J 1608	
50	C CHIP CERA	C488	HCQK330JBA	50V CH 33PF J 1608		102	R CHIP	R469-471	HRFT472JBA	1/10 4.7K OHM J 1608	
51	C CHIP CERA	C489	HCQK221JBA	50V CH 220PF J 1608		103	R CHIP	R472	HRFT103JBA	1/10 10K OHM J 1608	
52	C ELECTRO	C490	CEXF1C221E	RM 16V 220MF 6.3X11 TAT		104	R CHIP	R473	HRFT402FBA	1/10 4.0K OHM F 1608(1%)	
53	C CHIP CERA	C491	HCQK221JBA	50V CH 220PF J 1608		105	R CHIP	R474-475	HRFT101JBA	1/10 100 OHM J 1608	
54	C CHIP CERA	C492	HCQK330JBA	50V CH 33PF J 1608		106	R CHIP	R476-481	HRFT750JBA	1/10 75 OHM J 1608	
55	C CHIP CERA	C493	HCQK221JBA	50V CH 220PF J 1608		107	R ARRAY	RA401-402	HRTT8X103J	MNR 14X0ABJ 470 (10KX4)	
56	C ELECTRO	C494	CEXF1C221E	RM 16V 220MF 6.3X11 TAT		108	R ARRAY	RA403	HRTT8X472J	MNR 14X0ABJ 470 (4.7KX4)	
57	C CHIP CERA	C495	HCQK221JBA	50V CH 220PF J 1608		109	R ARRAY	RA404-406	HRTT8X181J	MNR 14X0ABJ 470 (180X4)	
58	C CHIP CERA	C496	HCQK330JBA	50V CH 33PF J 1608		110	R ARRAY	RA406-410	HRTT8X220J	MNR 14X0ABJ 470 (22X4)	
59	C CHIP CERA	C497	HCQK221JBA	50V CH 220PF J 1608		111	X-TAL	X401	5XE16M000J	16MHZ HC-49/U (RADIAL)	
60	C ELECTRO	C498	CEXF1C221E	RM 16V 220MF 6.3X11 TAT		112	X-TAL	X402	5XE27M000C	27MHZ HC-49/U 20PPM 30PF	
61	IC MICOM	IC401	1C1610----	C1610		1	PCB POWER SW AS	19000	9CDC0595D0	DV-135	
62	IC DECODER	IC402	1ZR36710--	ZR36710 DFP		2	PCB POWER SW	B001	9CD6584503	242X329	
63	IC SDRAM	IC403	1HY57V1616	HY57V1616		3	C CERA AC	C991	CH1BFE472M	4.0KV 4700PF M SD AC250V	
64	IC ROM	IC404-405	1A290021L-	A290021L		4	CONN WAFER	CP993	9728808200	VH-3A (W/O CENTER,RED)	
65	IC SRAM	IC406	11S61C1024	IS61C1024/L		5	SW POWER SPST	S991	5S40101369	SDDL-005-S PUSH	
66	IC EEPROM	IC407	1XC24C02--	XC24C02		1	PCB REG AS	12000	9CDC059890	DV-115	
67	IC RESET	IC408	1K1A7039AF	KIA7039AF		2	PCB REGULATOR	B001	9CD6583602	247X330	
68	IC ATAPI I/F	IC409	1ZR36701--	ZR36701P		3	C ELECTRO	C734	CEXF1C471V	16V RSS 470MF (10X12.5)BK	

17. Electrical Parts List

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NO	PART-NAME	LOCATION	PART-CODE	PART-DESC	REMARKS
4	C CERA	C735	CCXF1H104Z	50V F 0.1MF Z	
5	C ELECTRO	C738	CEXF1C471V	16V RSS 470MF (10X12.5)BK	
6	C CERA	C739	CCXF1H104Z	50V F 0.1MF Z	
7	CONN WAFER	CN701	9728808700	2.0MM PH-8A 8P	
8	IC REGULATOR	IC706-707	1K1A7805AP	K1A7805AP	
9	TR	Q731-732	TZTA1046Y-	KTA1046Y	
10	R METAL FILM	R727-728	RN-4Z100J-	1/4 10 OHM J	
1	PCB VIDEO AS	11000	9CDC0589A0	DV-115	
2	PCB VIDEO	B001	9CD6583601	247X330	
3	C CERA	C851	CZCH1H101J	CH 50V 100PF J AXL 52MM	
4	C CERA	C852-853	CCXF1H103Z	50V F 0.01MF Z (TAPPING)	
5	C ELECTRO	C854-856	CEXF1E470E	25V RM 47MF (5X11)	
6	C ELECTRO	C857-858	CEXF1A471E	10V RM 470ME (6.3X11)	
7	C ELECTRO	C867	CEXF1E101E	25V RM 100MF (6.3X11) TP	
8	C CERA	C868	CCXF1H473Z	50V F 0.047MF Z (TAPPING)	
9	CONN AS	CP851	9728810300	#26 P2.0 11P 220MM UL1007	
10	CONN WAFER	CP852	9728808600	2.0MM PH-6AW 6P	
11	DIODE	D851-855	DZN4148---	1N4148 AUTO 52MM	
12	IC SWITCH	IC851	1LA7952---	LA7952	
13	JACK RCA	JA851	9736323700	JE0200596N	
14	JACK S VIDEO	JA852	9736324000	C50160272N	
15	JACK RCA	JA853	9736323800	JE0301645N	
16	JACK RCA	JA854	9736323900	JE0301645G	
17	TR	Q851-852	TZTC3199Y-	KTC-3199Y TAPPING	
18	TR	Q853-854	TKRC107M--	KRC107-M TAPPING(KSR1006)	
19	R CARBON FILM	R851	RD-AZ104J-	1/6 100K OHM J	
20	R CARBON FILM	R852	RD-AZ221J-	1/6 220 OHM J	
21	R CARBON FILM	R853-855	RD-AZ750J-	1/6 75 OHM J	
22	R CARBON FILM	R856	RD-AZ680J-	1/6 68 OHM J	
23	R CARBON FILM	R857	RD-AZ473J-	1/6 47K OHM J	
24	R CARBON FILM	R858	RD-AZ391J-	1/6 390 OHM J	
25	R CARBON FILM	R859	RD-AZ680J-	1/6 68 OHM J	
26	R CARBON FILM	R860	RD-AZ473J-	1/6 47K OHM J	
27	R CARBON FILM	R861	RD-AZ391J-	1/6 390 OHM J	
28	R CARBON FILM	R862	RD-AZ473J-	1/6 47K OHM J	
29	R CARBON FILM	R878	RD-AZ332J-	1/6 3.3K OHM J	